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ABSTRACT

This investigation arose from concern about the linguistic and educational development of several dozen students aged 12-14 from the English comprehensive secondary schools in Gibraltar. These students, whose dominant language was Yanito-Spanish (the local vernacular), were administered a series of assessment measures. These included: (1) a word association task to determine whether the learning situation was conducive to stable or unstable bilingualism, (2) a word naming test to assess the use of the two languages, (3) a picture naming test to assess the children's ability to produce one-word and one-sentence utterances following a visual stimulus, (4) a picture composition test to assess the quality of language use in both languages, and (5) a test of linguistic-cognitive flexibility. In addition, statistical analyses of results of standard public examinations administered to Gibraltarian students 16 and older between 1977 and 1982 were used to investigate a possible link between language development and educational attainment. The results indicate that the students encounter linguistic difficulties related to vagueness of lexical distinctions, lack of competence in performance, interference between languages and the use of nonnativelike strategies, and phonomorphological incompetence, resulting in delayed linguistic development. It was also found that these children had more difficulty with language-based subjects than with mathematics and other technical subjects and that many of the children had limited flexibility and cognitive development and had not reached the level of bilingualism at which they can begin to attain its benefits. A bilingual educational system is recommended for Gibraltar to accommodate the bilingual community. (MSE)

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A STUDY OF THE EFFECTS OF ENGLISH-MEDIUM EDUCATION ON INITIALLY MONOGLOT SPANISH-SPEAKING GIBRALTARIAN CHILDREN

SERGIUS J. BALLANTINE

Submitted In Partial Fulfilment Of The Regulations For The Degree Of Master In Education Of The University Of Wales

December 1983

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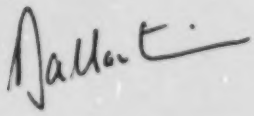

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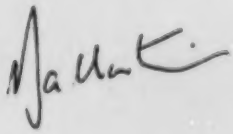

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SYNOPSIS

This study is the result of a growing concern with the situation of initially monoglot Spanish-speaking children in Gibraltar's English-medium system of education. Initially, the linguistic and educational background are described to enable an understanding of the present situation. Subsequently, and following an extensive review of pertinent educational literature, the tests which were administered to the subjects of the study are described and then the results are discussed.

The most salient results of the tests show that the subjects encounter difficulties of a linguistic nature related to vagueness of lexical distinctions, lack of competence in performance, interference between languages and the use of non-nativelike strategies, phono-morphological incompetence, and so on. This leads to subjects lacking fluency and accuracy, and displaying a delay in linguistic development. This affects educational progress and it emerges that the type of child studied faces greater difficulty with language-based subjects than with, say, Mathematics. Indeed, language problems compound educational problems in Gibraltar. Failure to cope with the language of education leads to a low level of flexibility and cognitive development. Many children of the type studied have not attained the "Threshold Level" (Council of Europe) whereby they may reap the cognitive benefits of bilingualism.

In the light of these findings the recommendation is that a bilingual system of education should be adopted in Gibraltar to provide adequately for those children whose language of communication at home is not that of the school system and to cater for the bilinguality of a community like Gibraltar.

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INTRODUCTION

The 1980s witness the fiftieth anniversary of the upsurge of interest and concern with regard to education in Gibraltar. What in all probability seems to have started as a politico-educational enterprise has certainly shaped the face of Gibraltar's society. In this study the aim is to uncover the effects which an educational system modelled on the British variety, in ideology, methodology and curricular content, may have had on children who initially, on commencement of compulsory schooling, had little if any knowledge of the linguistic medium of instruction - English.

The study will be looking at the educational system, investigating the linguistic situation in which everyday life evolves, and surveying the findings of research which has been conducted into the effects (cognitive, linguistic, and educational) of education through the medium of a second or foreign language.

With the help of a series of tests conducted in Gibraltar schools and following an analysis of the ensuing results the study will attempt to find out to what extent the findings of the above pieces of research apply to the Gibraltar situation, whether both sets of research are in agreement or whether they appear to be contradictory. Finally it is hoped to ascertain whether any new findings emerge from the study.

Ultimately, once the results of the study have been evaluated, we will discuss the feasibility of the implementation of a bilingual system of education which might ameliorate any negative aspects that emerge from the present system.

CHAPTER 1 THE LINGUISTIC ENVIRONMENT

1.1 Bilingualism in Gibraltar

All the world over indigenous languages have been displaced by the language of the former colonial power. So Spanish has become the general mother tongue within the former Spanish Empire. English and French have also been adopted as mother tongue by indigenous people but by and large where English and French are spoken by indigenous populations in former Anglophone and Francophone colonies they are learned as additional languages and not spoken as mother tongues. Four conditions are said to have influenced the adoption of "colonizing" languages: military imposition, duration of authority, linguistic diversity of the country, and material incentives (Broonahan, 1963). Cooper (1975) advocates that factors such as urbanization, industrialization and economic development, and educational development have promoted the spread of a language as an additional language. Fishman, Cooper, and Rosenbaum (1977) add religious composition of the country and world-power political affiliation.

In any community bilingualism can come about as a result of these factors. Linguistic, demographic, geographical and historical influences all affect the language situation. The definitions and descriptions of bilinguals and of bilingualism given by investigators and scholars have shown great variations. Definitions range from uses of the term to denote a person with minimal language skills in his second language (Macnamara, 1967) to elaborate descriptions involving the ability to produce complete and meaningful utterances in the second language (Haugen, 1953). Other writers claim that bilingualism is native-like control of two languages (Bloomfield, 1935), that what matters is the extent of the knowledge of two languages (Jakobovits, 1970), that it is the coexistence

in the same individual of two distinct sets of linguistic symbols of communication (Malherbe, 1969) or contact with possible models in a second language and the ability to use these in the environment of the native language (Diebold, 1961). To find a common feature in all these we can turn to the definition offered by Weinreich in Languages in Contact when he says that bilingualism is the practice of alternately using two languages (Weinreich, 1963). What, in a utopian situation, might be termed "ideal bilingualism" by some researchers would be epitomized by the example of a person who has attained native-like competence in his two languages. As recent research findings aptly demonstrate this notion of equilingualism is untenable. This absence of theoretically ideal or perfect bilinguals has led some linguists to propose several types of bilingualism.

A three-fold classification of "co-ordinate", "compound" and "sub-ordinate" bilingualism was proposed by Weinreich; this was later modified by Ervin and Osgood who retained "co-ordinate" but who subsumed "compound" and "subordinate" into a new "compound" description. In co-ordinate bilingualism different meaning is ascribed to words in the two languages whilst in compound bilingualism identical meaning is assigned to corresponding linguistic items. Along with these notions we have the idea of "balance bilingualism" where no difference exists between the languages in different situations, "simultaneous bilingualism" where one language is learned from the parents and the other from peers, "successive bilingualism" where one language is learned after the other, the cut-off point generally being three years of age, and finally the idea of "diglossia" which is a situation where separate registers are used for different functions. Fishman (1967) proposes four distinct situations regarding diglossia and bilingualism. Diglossia, a culturally legitimate and complementary phenomenon where little conflict exists due to functional

separation, can exist alongside bilingualism with

> "the existence of a fairly large and complex speech community in which the members have available to them both a range of compartmentalized roles as well as ready access to these roles. If the role repertoires of these speech communities were of lesser range, then their linguistic repertoires would also be(come) more restricted in range, with the result that separate languages or varieties would be(come) superfluous. In addition, were the roles not compartmentalized, i.e., were they not kept separate by dint of association with quite separate (though complementary) values, domains of activity and everyday situation, one language, or variety, would displace the other as role and value distinctions merged and become blurred. Finally, were widespread access not available to the variety of compartmentalized roles (and compartmentalized languages or varieties), then the bilingual population would be a small, priviledged class or caste....rather than a broadly based population segment". (Fishman, 1967: 31)

Diglossia exists without bilingualism where two speech communities are united into a single functioning unit yet where

> "one (or both) of the speech communities involved is (are) marked by relatively impermeable group boundaries such that for 'outsiders'....role access and linguistic access are severely restricted. At the same time linguistic repertoires in one or both groups are limited due to role specialization". (Fishman, op cit: 36)

Thirdly, whereas bilingualism exists, diglossia is absent in situations of imbalance where

> "no well established, socially recognized and protected functional differentiation of language obtains". (Fishman, op cit: 35)

As a result the language of work (and of the school) comes to be used at home. Languages and varieties formerly kept apart come to influence each other phonetically, lexically, semantically and even grammatically much more than before. In this situation

> "without separate though complementary norms and values to establish and maintain functional separation of the speech varieties, that language or variety which is fortunate enough to be associated with the predominant drift of social forces tends to displace the other(s)".

It is evident that whereas bilingualism, in principle, concerns the

psychologist, diglossia tends to be of concern to the sociologist. Doyle, Champagne and Segalowitz (1978) point out that diglossia should foster vocabulary growth in the bilingual.

In Gibraltar, situated on the southern coast of the Iberian Peninsula, and linked to the mainland by a low sandy isthmus, bilingualism owes much to its position as a British colony since 1704. When many of the Spanish inhabitants fled to neighbouring San Roque following the capture by an Anglo-Dutch force gradually their place in the ensuing community was taken by immigrants of Genoese, Portugese, Italian Morocan, Jewish and British origin. In 1766 the Spanish historian Lopez de Ayala reports that there were in Gibraltar 2,700 English, Genoese and Jews speaking a dialect "compounded of Spanish and English" and a jargon "common to all southern nations not excluding Africans". In 1791, in a working population of 2,890 there were only eighteen Spaniards and eighty-four Morocans. In subsequent population censi the number of Spaniards varies between 12% (1,892 out of 14,801 inhabitants in 1844) and 16% (527 out of 3,197 inhabitants in 1814; 2,341 out of 14,244 inhabitants in 1891). With naturalization the number of Spanish nationals in Gibraltar had dropped to 7% of the population by 1947. No doubt due to its compactness the various ethnolinguistic groups achieved practically total integration. To facilitate the development, socially and economically, of an integrated community all these people, predominantly of Mediterranean stock, needed a common tongue in which to communicate and trade. As a result of geographical and economic factors the language variety which came to serve the common purpose was Spanish, albeit of sorts. This variety has through the years developed into what is now termed "Yanito", a vernacular which is a Spanish-English dialect including, to some extent, words from the native languages of Portugese, Jewish and Genoese immigrants who, because the different

nations segregated into quarters, retained their tongues. Dr. West (1956) seems astonished that, with the Spanish element in the population so reduced, Spanish should persist. He seems to overlook the influence which factors such as trade, communication with the influx of day-workers (8,000 in 1947, 5,000 in 1969) and intermarriage have had on the linguistic situation. He points out that

> "None of these causes would account for more than a debased, Hindustani-like use of the language". (West, 1956: 152)

On the other hand the use of Spanish in Gibraltar is more than that.

Gibraltar's indigenous population, in particular since this century, has the potential, and in many cases the real, ability to communicate in two languages, English and Spanish, although for daily informal use the vernacular Yanito is used. The term stems from the Italian word "Gianni" meaning "John". It would seem that many of the original Genoese and Italian immigrants were called Gianni and the name, in its Andalusian dimunitive form, became the nickname given by Spaniards to the Gibraltarians. As a language Yanito's core is the Spanish language which became the "lingua franca". Because many of the traders who replaced the Spaniards were nationals of various Mediterranean states they brought their own language; today's vernacular shows signs of borrowing from these languages. Hence there are words like "pompa", "escribano", "lavamano", "pavana", "tapete", and "dulces" which originate from Genoese; words like "safi" and "flush" of Arabic origin; a word like "benzims" which is of Hebrew origin. All these words have, over the ages, been assimilated and integrated into the superstructure of Spanish; an analysis of Yanito brings to light the fact that its syntax is quite regular in that verbs, more often than not, are Spanish verbs whereas it is usually the case that nouns are the items borrowed from the other languages. We can thus come across

utterances such as:

Me gustan los dulces
La pompa está en el patio
Se lo di al escribano
Necesito un sacatapón.

All the verbs (me gustan, está, di, necesito) are Spanish and would be understood by any native speaker of Spanish; however the nouns (dulces, pompa, escribano, sacatapón) are of Genoese Italian origin and indeed can have different meanings in Castilian Spanish. So, "pompa" which in Yanito means "pump" means "pomp" in Spanish. This is another characteristic of Gibraltar's language, the fact that apart from borrowing it contains words which in Spanish itself have a meaning which can be different to that of Yanito. So, in Yanito "aguantar" means "hold", "bizcocho" means "biscuits", "fórmula" means "form" and "cortes" means "court" whereas in Castilian Spanish these words mean "put up with", "cakes", "formula" and "parliament" respectively. Hence lexical items in Spanish have, over the years, through contact, changed meaning while syntactically Spanish remained, and still remains, the main form of communication in informal situations and, up to the first three decades of this century, even in formal situations.

As mentioned earlier industrialization and educational development in Gibraltar constituted an important factor in the development of its bilingualism. With the increased use of local and immigrant labour from Spain in workplaces such as the naval dockyard a situation arose where posts from middle-management onwards were held by British craftsmen and managers whereas the unskilled and semi-skilled labour was on the whole Spanish-speaking. An obvious problem of communication arose and, to bridge the gap, the Spanish-speaking workers acquired English words and hispanicized them. We now consequently have lexical items like "cuécaro", "pisup", "liquirbá", "cimén", "picle", "apoinmen", "chitería", "chuar", "mebli", "sojpen", "quequi", "rolipó", "tipá", "grevi", and countless others. These words stand for "Quaker Oats",

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"pea soup", "liquorice bar", "cement", "pickle", "appointment", "cheat", "choose", "marble", "saucepan", "cake", "lollipop", "teapot" and "gravy". Consequently, utterances such as

Me comí el cuécaro
El sojpen está en la mesa
Tengo un apoínmen a las dos
El cimén está listo

are frequently heard and are not uncommon in day-to-day interactions.

Gibraltar's linguistic situation is obviously an example of languages in contact affecting each other. Visible reflections of contact are the lexical borrowing and the accent and phonological borrowings. In any situation, as researchers have pointed out, choice among linguistic alternatives, which in Gibraltar can range from choosing between two "equivalent" pronunciations of the same word, as in /tiːtʃɜːr/ in R.P. English or /tiʃe / in Yanito for "teacher", to choosing between two languages to express an idea, as with "blackboard" or "pizarra", is largely conditioned by a complex interrelationship of factors present in the organization of the community and in the setting of the speech act.

Code switching, interference and integration are seen by Haugen (1956) as characteristics of bilingual code distinctiveness. The bilingual, and the Gibraltarian is no exception, is the "locus of interlingual impact" (Shaffer, 1978: 266). Over a time as we have seen bilingualism results in a partial merger of originally distinct codes and simultaneously the emergence of new norms, norms that include switching, a phenomenon that usually follows the line of least resistance. Diebold (1963) sees switching as code alternation within the same discourse, situation appropriateness being of paramount importance. For Shaffer (1978: 269) it is "interlingual impact maintaining separate codes". Here there appears to be syntactic primacy since switch boundaries correspond

to phrase structure boundaries, the language of the phrases agrees with, and is dictated by, the language of the head word and the phonology of switches spills over across lexemes. Yet, whereas some items are adapted, i.e. "cuácaro", morphologically and syntactically unadapted words occur in the speech of the Gibraltarians. For example we have

> Se los cayó el hockey stick
> Tengo que hacerle un rostring a mi raqueta
> La playa está cubierta de seaweed.

As Weinreich (1966), Mackey (1970) and Lance (1969) point out this is more akin to borrowing. So there appears to be a continuum between switching and borrowing.

As Gumperz (1970) points out, selection among alternate codes is meaningful in much the same way that choice among alternate vocabulary items is meaningful in monolingual societies. Code switching is "a communicative skill, which speakers use as a verbal strategy" (Gumperz, 1970: 136). Words carry a wealth of specific association, attitudes and values which derive from the context in which words are usually used and from the activities with which they are associated. This holds true for lexical, phonological and syntactic alternatives. Indeed, code switching is possible even when both variants are available. In some instances Gibraltarians may use a mispronounced English word as this would appear to be the situationally-relevant alternative to use, even though in a different context they may quite well use the item in its "correct" form. Lipski points out that

> "the only general rules about code-switching are those prohibiting splitting main verbs from auxiliaries, subjects from verbs and nouns from adjectives and appear, in most cases, to be manifestations of some more general constraints, which dictate that, superficial morphological format notwithstanding, certain phrasal elements are atomic and, consequently, unbreakable". (Lipski, 1978: 252)

Yet Yanito includes utterances such as "está jogging" where the main

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verb and auxiliary are split and "el video negro" or "un fridge grande" where noun and adjective are split. Prepositional phrases which, as Lipski says, should be atomic are similarly split, as "esta de leave" shows. Again

> "little, if any, code-switching occurs in infinitival constructions, except where the entire verb has been borrowed from one language to the other". (Lipski, op cit: 254)

Yet sentences such as "esta haciendo checking" or "voy a marcar" are possible even though the first one is syntactically incorrect and the second one semantically ambiguous as far as Spanish is concerned.

Latley (1981) considers speech errors, slips of the tongue and bilingual code switches to be related. This relatedness is part of the larger phenomenon that allows the selection of different varieties of language that are available to a single individual. In a bilingual situation, more common is

> "the switch prompted by the high utterance potential of a term in one of the languages in question". (Latley, 1981: 51)

The phenomena of slips of the tongue and code-switches are seen on a dual continuum: a continuum of intentionality and of awareness. For Latley

> "The choice among the available ways of expressing the message to be communicated under given conditions is controlled by the social setting and by contributing factors such as utterance potential, ease of expression or availability of a succinct way of saying something in one language, speed of recall, etc". (Latley, ibid: 55-56)

The exploitation of two languages for speaker convenience is the norm for a bilingual. There may be unmonitored production, an unawareness of fusion and complete lexical and syntax borrowing. One, or all of these may be encountered in the speech of bilinguals in Gibraltar. According to Macnamara (1967: 70) the most likely explanation for

switching is that the bilingual has

> "the capacity to activate the L2 system, carry out the semantic encoding, the selection of words and the syntactic organization while more or less mechanically producing in L1 material which has already been prepared for production".

We can, now, move on to discuss the psychological ingredient of bilingualism.

1.2 Psychological Aspects of Bilingualism

An educated person has two productive or encoding skills, speaking and writing, and two receptive or decoding skills, reading and listening. In each of these skills four aspects can be distinguished: phonological, lexical, syntactic and semantic. Bilingualism involves two such matrices. Many bilinguals possess all four skills but preschool bilingual children cannot read or write either of the languages, while persons educated in only one language, as is the case with children in this study, may be unable to read and write the other, especially if the two orthographies are different.

The psychological aspect of bilingualism emphasizes the personal and psychological history of the child and considers the age of acquisition and the order of acquisition of the second language, the attitude towards the second language in the community and whether the language is that of the classroom. Bilingualism in Gibraltar is the result of the desire to acquire a language for trade and economic achievement and of the spread and development of education. Now it is part and parcel of the way of life. There are two views regarding language development and attainment in two languages. The first sees the learning of two languages as something which is as easy as the learning of one. Here the modes

of pronunciation are organized independently and vocabulary and syntax are kept apart with success (Jonjat; Castillejo). Penfield supports this view but qualifies it with his notion of "age of neurological plasticity" which facilitates the acquisition of languages. He says

> 'There is an age when a child has the remarkable capacity to use these areas (of cerebral cortex) for the learning of language, a time when several languages can be learned simultaneously as early as one language. Later, with the appearance of the capacity for reason and abstract thinking, this early ability is lost. One who is mindful of the changing psychology of the human brain might marvel at educational curricula. Why should foreign languages make their first appearance long after a boy has lost full capacity for language learning".
>
> (Penfield and Roberts, 1959: Ch 2)

The second view believes that a child learns both languages rather imperfectly and does not really command the finer points of either of the languages. In the Journal of Genetic Psychology, Volume 74, M. E. Smith says

> "A bilingual child is seldom advanced by six years of age in either of the two languages he speaks to be as the average monolingual child, since he knows so much fewer words.... and uses them incorrectly".

This view expects equilingualism, something which, in any case as Dodson (1976) points out, is well nigh impossible to achieve.

However, in a recent paper, Cummins proposes a model in an attempt to explain the development of L1 skills and L2 academic skills. Now bilingualism is no longer a disadvantage: it confers academic as well as cognitive advantages when competence in both languages continues to develop. Cummins' "Think Tank Model" assumes that there is only one Think Tank which formulates and comprehends thoughts in both L1 and L2, that meanings are not directly interpretable across languages (in particular abstract concepts) so that some operations may be easier to express in one of the bilingual's two languages depending on exposure to that

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information, and that an individual's experience with language, either language, contributes to the development of the total Think Tank. However, as he points out,

> "if an individual's proficiency in one of the languages is low, then the amount and quality of both input and output flowing between the Think Tank and the environment through that channel will be reduced". (Cummins, 1981: 30)

This has obvious implications for education. When, for various reasons, the L2 valve (itself the medium of all instruction for children who are educated through their second language) is partially closed and there is little if any stimulation coming in through the L1 valve, then growth and development in the Think Tank will be sluggish. Previous conceptual information or subject matter knowledge for comprehending meaning in the second language is of vital importance. The way in which the languages are acquired, both the first and the second, will indeed determine competence and proficiency.

Referring to the relationship between the mental development of the monoglot and that of the bilingual many researchers have pointed out that monoglots are superior in vocabulary tests and in the Stanford-Binet test. Recently, however, support has been voiced for the claim that

> "bilingual children seem to respond more adequately when tested in their native tongue"

and that

> "testing in (the second language) gives rise to a faulty picture" (Jones & Stewart, 1953)

Obviously children who learn a second language where it has prestige and economic benefits take pride in the second language and consider themselves superior due to their bilinguality. This has been the

case with Canada and Gibraltar where it has been the tradition to assess a person's ability according to his command of English. This would also be the case in most former Anglophone colonies.

Beneficial or negative effects of bilingualism depend very much on attitude of mind and esteem of the languages. Where fate has driven a community to have two languages let what Professor Gatenby said be borne in mind

> "Let the pupils have a chance. Give them a teacher who knows the language thoroughly and will use it all the time. Let them start learning at the earliest possible age through pleasurable activities, with the minimum of formal teaching and the maximum use of a language in natural situations". (Gatenby, English Language Teaching, VII; 123)

On the other hand one has to agree with John (1970) who, referring to Bruner's methods of representation (Enactive, Ikonic, and Symbolic modes), points out that

> "to help foster the development of the symbolic mode of representation as well, bilingual children should have the opportunity to engage in cognitively rich dialogue with adults in their dominant language". (John, 1970: 63).

Ultimately, the child becomes a successful learner of languages because he takes an active part in the process of acquisition. It is to the setting of this process of acquisition, the education system, that we now turn our attention.

CHAPTER 2 THE EDUCATION SYSTEM IN GIBRALTAR

As is widely accepted education has as its aim the development of character and of mental powers; it strives to give intellectual and moral training to those who pass through. Naturally enough the philosophy of the education system is intimately linked to the general philosophy of life dominant in the particular society. Hence ever since the Greek philosophers postulated the idea a system of education has been seen as a major instrument of socialization. As Bratt Paulston (1972: 11) points out

> "It is crucial in evaluating educational language planning that one consider the function of education in that society".

Gibraltar is no exception and language policy and education have played an important role in the way the community has evolved over the past forty years or so.

The present-day education system which is governed by the 1974 Education Ordinance has as its origin the report of a committee which was set up to work out proposals for a new educational system in 1943. The report concluded that the committee had been guided by one inflexible purpose which was

> "to make amends for past neglect by putting within the reach of every child, no matter what his circumstances, the opportunity to face life with a sound education and the means of continuing his mental development after leaving school".

At the time it was hoped to ensure that

> "the future generation shall be British in something more than name and shall share equally with other members of the great family of British people all that the English language, culture, and tradition have to offer them; so, only, will new and responsible leaders emerge". (Paragraph 61)

To put education at the disposal of all was a laudable aim. On

the whole the standard of education at the time was indeed poor. As the 1933 census had shown 20% of Gibraltar's inhabitants were illiterate. Pre-war education had been mainly left in the hands of the Church resulting in overcrowded schools and unqualified teaching staff. It was felt that the Government should bear responsibility for educating the citizenry and to achieve its stated aim the Committee proposed that the emphasis throughout the whole of the school life should be on "the English language and the Imperial connection" (Paragraph 11). Here we cannot but agree with Heath (1972) when he points out that decisions made during the history of a nation, and that includes decisions about language and education, are made primarily on political and economic grounds, and reflect the values of those in power. Linguistic issues per se are of minor concern, though this should not be so. The 1943 Report emphasized the importance of the English language yet took no account of the preferred or dominant language in the community. It continued

> "Spanish influence in the community has grown deep roots which have been continually refreshed by intermarriage and, due to this and to the defects of the previous educational policy, the Spanish language and Spanish mental processes still dominate the intellectual life of the community. Few Gibraltarians are able to explain themselves with any fluency in English and amongst themselves they lapse naturally into the Spanish tongue... This is a state of affairs which must be combatted with the utmost vigour both in school and out". (Paragraph 20)

Both the educational and political ramifications now become clearer. The Report concluded

> "There is no wish to oust the Spanish language from the colony for the Gibraltarians are a people who should be naturally bilingual and it is the Committee's ambition that the young people of the colony should be perfectly so; but the local vernacular (Spanish) is not of a high standard

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> and there is little appreciation of either grammar or syntax. It is recommended, therefore, that Spanish should be regularly taught in all schools from '11 plus' by properly qualified language masters and mistresses. It should not, of course, be employed as a medium of instruction for any other subject". (Paragraph 21)

How a vernacular can have "little appreciation of either grammar or syntax" is beyond comprehension to any linguist. No account is taken of the fact that thinking is developed through language and that education conducted through the medium of the native language promotes normal cognitive development. Here we have a prime example of the serious disagreement existing between those who champion "the unmediated language of the children" and those who believe that

> "it is the function of the school to teach standard language only and to prepare pupils for standard language roles". (Fishman, 1977: 316)

The point that must be borne in mind when considering language and an education system is what constitutes a dialect or vernacular. Indeed a dialect is not an evaluative term at all, it merely implies a part of a whole. The basic notion is that of a linguistic pattern within a greater part-whole language system. Thus the term is not a prejorative one strictly speaking; yet the widespread use of the term is definitely a prejorative one, certainly in the terms of reference of the above Report. The standard, in this case English, is considered "better" and associated with higher social, educational, cultural and economic statuses within the given context.

A close look at the massification and vernacularisation of European education yields a deeper explanation for the education system in Gibraltar. Industrial-political transformation during the 18th and 19th centuries brought with them this phenomenon.

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Previous educational elitism through a classical or foreign language was not made available to the masses. Yet these had to be moulded and communicated with in a more thoughtful way to achieve the purposes of the leaders; vernacular schooling was itself such a communication. In Western Europe the vernacular variety that had slowly been standardized for other government purposes became the medium of schooling as well. Official policy towards regional dialects was noncommitted at best, and obviously hostile at worst. Regional languages which were not conducive to unity were seen as unreliable as educational media on a long term basis. In Central and Eastern Europe a more permissive and conciously more reasoned stance was adopted in many of the settings in which political consolidation was more slow in coming into being (Fishman, 1977). Instead of an established variety setting the standard for school use, a school or literary standard was achieved first with more permissiveness towards regional dialects and then this standard finally became or influenced the government standard. The difference between the centralized negative approach to dialects and education, epitomized by the French education system, and the decentralized positive approach, as seen in the German system, was clear-cut and accentuated by this century. In Gibraltar, the adoption of a standard (English) as medium of education, without due consideration to the local dialect (Yanito/Spanish) seems to have been the decision taken by those involved in the drawing up of the 1943 Report.

Organizationally, the education system in Gibraltar has developed as a carbon-copy of that in Britain. Children attend school from the age of 4+ to the age of 15 and are educated through

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English by teachers trained in Britain using textbooks published in Britain which prepare them for British public, external examinations at C.S.E. and G.C.E. 'O' and 'A' levels. On entering school all children, regardless of their level of competence, are faced with a situation where they must master English if they wish to avoid failure in school and subsequently. For many children, one could venture to say that it is the majority, the command of English on entering school is not very good and in many cases non-existent. During their pre-school years they have been exposed to and acquired the local vernacular and as a result the language they are really competent in is a dialect of Spanish. Knowledge of English is on the whole restricted to the loan words and phrases which form part of Yanito. This does not mean to say that there are no children who enter the schools with a certain degree of competence in English; there are, some would say, an increasing number but they are still in the minority and will most probably remain so. Many of these are themselves the victims of the situation where, with education through the medium of a second language as far as the home environment is concerned, parents feel the need to give the child practice in that language and use it, to a certain extent, as a medium of communication. Yet if their language is poor then they are poor "models". Indeed as Krear (1969: 3) points out

> "the use of 'fractured' English as the central means of communication in the home can develop more speakers of English with an accent."

It is indeed a vicious circle but children have to face this situation. Not only do they have to learn a second language but they also have to cope with it as the <u>sole</u> medium of instruction for

all school subjects. This is the case through Primary School (4+-8), Middle School (8-12), and Comprehensive Secondary School (12-18). The curriculum in all schools is reminiscent of that to be found in a British school even to the extent of English being taught as a first language as it would be in a British school and Spanish, forming part of the Modern Languages Department, having up till recently been taught with texts designed for foreign language learning. All children follow a unified curriculum through Primary and Middle School and it is interesting to note that not all the schools offer Spanish on their curriculum. In the comprehensive schools English, Spanish, Mathematics, Religious Education, and Games are core subjects throughout. It is at the age of fourteen that children opt for five subjects from the range they have been offered and, together with the five compulsory subjects mentioned above, take these up to public examination level (C.S.E. or G.C.E.) at the age of sixteen. Those who succeed can then take three subjects, usually either Arts or Sciences, up to G.C.E. 'A' level standard. Success here will qualify them for a place in a British university, politechnic or college where they can pursue their studies; further education, excepting the Technical College which trains technicians for employment in the dockyard and allied trades, is not available in Gibraltar. Even in the Technical College, which caters for children who have decided to opt out of secondary school for a technical career and who, in the majority, are those who experience language difficulties and hence attainment problems, instruction is through the medium of English. Even though it would be feasible and, why not?, successful it has never been decided to embark upon

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a bilingual system of education, one that would be a preparation for membership in a healthy, meaningful and satisfying modern speech community and should help children towards greater mastery of both languages, "each for its own normatively recognized functions, effectively, appropiately, effortlessly" (Fishman, 1977: 333).

We thus evidence in Gibraltar an education system developed along the lines of that of the United Kingdom, even in major aspects such as language teaching. Its continued adaptations have echoed the changes within the British system and its curriculum. We must now move on and investigate the literature dealing with the effects of education through a second language.

CHAPTER 3 REVIEW OF PERTINENT LITERATURE DEALING WITH THE EFFECTS OF EDUCATION THROUGH A SECOND LANGUAGE

While many sociologists and sociolinguists agree that languages live in communities and that, if they belong to anyone, they belong to their speech communities (Fishman, 1977) it has been the case, for various reasons, that they have in many instances not been considered suitable as media of instruction in those communities and a second language has been adopted. This is contrary to the recommendations of the Report of the Royal Commission on Bilingualism and Biculturalism (Vol 2: Education: 9) that education should start "within the area of the child's experience and then proceed to the less familiar and unknown". Prior to the 1960s much of the research into the education of children through their second language had not taken account of important variables, such as socio-economic status, and bilinguals were automatically labelled as backward and deficient in language and in attainment. Recent research has been much more objective and indeed scientific and so the picture has altered considerably. We will look at four particular areas of research into the consequences of following a curriculum through the medium of a second language: cognitive, linguistic, educational and affective.

3.1 Cognitive Consequences

In 1959 Penfield and Roberts asserted that the acquisition of a second language is dependent on neurological maturity rather than on the development of intelligence. Most earlier studies of bilingual children suggest that there is a negative effect on development which affects progress in school. However, these early studies had methodological flaws in that there is a lack of comparability between the monolingual and the bilingual. Arsenian was the first to see the positive

effects and Peal and Lambert (1962) support the view that the bilingual is superior in intelligence due to a more diversified cognitive structure and greater mental flexibility. Macnamara (1966) is however sceptical about the positive aspect of a person's bilingualism and indeed raises the point that we must look at what levels of second language competence are necessary to benefit the child in the performance of complex cognitive operations in the second language. Tsushima and Hogan (1975) and Torrance, Gowe, Wu and Aliotti (1970) all report that in the second language children perform lower on measures of verbal intelligence and on the fluency and flexibility scales of tests; the trend however is reversed on originality and elaboration scales.

Cummins (1977a; 1977b) believes that education through a second language can have positive effects on some cognitive processes. He proposes that

> "under certain learning conditions access to two languages can positively influence the development of some cognitive processes". (1977a: 3)

Many researchers provide evidence of some association between divergent thinking and the attainment of bilinguality. However, the level of competence a child attains, through education, in his two languages may be an important intervening variable in explaining the effects of his learning experiences on cognition. Indeed, good linguistic attainment is associated with divergence and Vygotsky has made it plain that language is intimately linked to concept development. One cannot but agree with John (1970) who states that

> "linguists speak of language acquisition as primarily a cognitive enterprise rather than a behavioural one". (p.60)

Children convey their growing comprehension of a new language by gestures and mime. It is harder to judge whether school is

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helping them broaden their conceptual mastery of their environment while learning a new language as in immersion programmes. Teachers often neglect the cognitive aspects of growth. As John points out

> "The use of language for purposes of problem- solving unfolds at an accelerated pace between the ages of four and seven, the very time when (Immersion programme) children are exposed to a second language. Caught between two languages, the young child needs special assistance in organizing his world". (John 1970: 65)

failure to cope with the language of instruction will result in a low level of fluency and flexibility. The level of competence attained by a child educated through his second language may indeed mediate the effects of his learning experiences on cognitive functioning. As Cummins (1977a: 10-11) points out

> "Specifically, there may be a threshold level of linguistic competence which a bilingual child must attain both in order to avoid cognitive defects and allow the potentially beneficial aspects of becoming bilingual to affect his cognitive growth. Those aspects of bilingualism which might accelerate cognitive growth seem unlikely to come into effect until the child has attained a certain minimum or threshold level of competence in his second language. Similarly, if a child in an immersion program attains only a very low level of competence in his second language his interaction through that language with an increasingly symbolic environment is unlikely to optimally promote his cognitive and academic success. Not only will he fail to comprehend much of the content of schooling but he is also likely to experience difficulty in expressing his developing intelligence and operating (in a Piagetian sense) on the environment through his second language. One probable consequence of this is a decrease in intellectual and academic curiosity".

This would suggest, among other things, that the dominant language of children on entering school needs to be given a stronger base before, or along with, the introduction of the second language.

In a report of a longitudinal study of elementary school children learning a second language by using the language as medium of instruction Lambert, Just and Segalowitz (1970), using the Progressive Matrices Test and the Lorge-Thorndike battery, claim

that there are

> "no symptons at the end of Grade II for any intellectual deficit associated with the experimental program of instruction".

However, there is

> "no evidence...for any intellectual advantage that can be ascribed to the experimental program". (Lambert, Just and Segalowitz, 1970: 254)

It is claimed that there is no evidence of intellectual retardation, nor any sign of cognitive retardation. In a subsequent paper, Lambert and Tucker (1972) admit that results offer no support for the idea that an immersion programme can enhance cognitive or mental flexibility. This seems to be true for children in Grade 1 to 4 of the Canadian French Immersion Programmes. However, as Cummins (1977: 11) rightly points out

> "Possibly one of the reasons why so little cognitive retardation has been observed in the early grades of immersion schooling is that during these grades the child's interaction with the world and, consequently, his cognitive development, is less dependent on the mediation of language than at later grades....Thus, linguistic difficulties such as inadequate command of the second language or interference between the first and second language are likely to have a greater effect on the child's expression of his intelligence at the formal operational than at the concrete operational stage".

This view is supported by Lambert and Macnamara (1969: 94) who assert that

> "there is some evidence of a relative suppression of intellectual development in the experimental class".

Thus there is no support here for the idea that a second-language-medium experience in education can enhance cognitive or mental flexibility.

Indeed Macnamara (1967) states that the child takes longer to solve problems when they are presented in the weaker language.

McLaughlin (1978: 170) points to the fact that bilingual children tested in their second language are at a definite disadvantage in intelligence tests with a verbal factor because of their inability to deal conceptually in the second language with the degree of fluency and accuracy that monolingual children possess. Ultimately it is the quality of the programme which will determine the extent to which a child will experience negative or positive cognitive effects.

3.2 Linguistic Consequences

There appears to be, now, a linguistic threshold level that must be attained by children instructed through their second language if they are to avoid negative consequence and to reap benefit from their educational experiences. We must then investigate the effects which education through the medium of the second language has on the language development of the individual.

A child who takes a particular language to school and is taught a second one there develops a preferred and a second language in the same way as does a young bilingual. The term "preferred language" is relatively young and represents a shift in emphasis in an attempt to explain language use in bilinguals. Previously, researchers had used the terms "mothertongue", "dominant", "first" or "native" language indiscriminately when describing the stronger language of a bilingual, irrespective of domain or situation or area of experience. According to Dodson, however, a bilingual's mothertongue or first language of acquisition need not necessarily be his "preferred" or "stronger" language for all aspects or areas of experience. So, language A can be the preferred language for one area but may be the second one when the individual finds himself in a different situation. Therefore the "preferred language", where "preferred" is a neutral psychological term, is that language in which a speaker feels more at ease in a particular situation and when expressing particular concepts; it is not necessarily the same one in each area of experience. As Dodson (1976) states

> "It is, therefore, normal for a bilingual speaker to be operating at preferred and second language levels in one area of experience, whilst in another area the status of the two languages is reversed.
> A language becomes a preferred language if a) the child is able to cope with more aspects of his world in this language and with fewer aspects in the other language and b) the child feels more 'at home' on a greater number of

> occasions in one language rather than in the other for those aspects in which he makes use of both languages."

Ervin-Tripp (1966: 88) asserts that there is discontinuity between the two languages in the case of children educated through what is not their preferred or home variety. She says

> "Speech with family and friends is likely to be repetitive, descriptive, predicative and to involve short, situationally embedded utterances. In school there is emphasis on information, enrichment of vocabulary to describe and explain absent objects, and differentiation of grammatical structures for logical distinctions."

With the evident discontinuity between home language and school language a lack of proficiency is inevitable. Before the child has mastered the oral and aural aspects of language he is, in immersion programmes, faced with having to acquire reading and writing skills. All this despite evidence that these two skills should be developed in the preferred language. The child is burdened with having to learn to read and write a language whose sound system may be vastly different to that of the language he is orally and aurally fluent in. Referring to Spanish-speakers in the U.S.A., Bruce Gaarder (1972: 56) points out that

> "because Spanish has a much better writing system than English (i.e. the writing system matches the sound system) speakers of Spanish can master reading and writing very quickly."

Using their, up to the present, preferred language as a springboard,

> "Spanish-speaking children... have a decided advantage over their English-speaking schoolmates."

When this is not the case the child's second language will become very much something of the school and itself is not dealt with and learned competently because the preferred language is not catered for. For young learners sounds belong to a unified set of phonemes not differentiated by languages. As Leopold (1978) points out,

with the mother tongue not taught in school interference into the second language occurs. In a report on the Culver City Spanish Immersion Programme, Cohen (1974: 97) claims that

> "If reading in one language is firmly established, then this foundation can serve as a base for transfer to the other language. If there is inadequate time for a base to be established, interference can result."

This appears to be the case indeed with all unsuccessful immersion systems. When the child has to acquire literary skills in an unfamiliar language his language use is domain specific and his range of vocabulary relating to home and school may develop unevenly (Rado, 1974). Carrow (1971: 303) goes as far as to claim that in the case of Mexican-American children

> "there are specific areas in which (they) are, as a group, significantly delayed in either or both languages. Pronouns seem to cause problems for these children in both languages. A second area of considerable differences from controls in both English and Spanish is that of negatives. Other differences are seen in comprehension of tense markers - with the exception of the present progressive, adjectives, prepositions and plurals."

Indeed, in the U.S.A.,

> "failure to recognise the Mother Tongue and thus present English as a second language helps to produce functional illiteracy in almost three out of four Spanish speakers." (Bruce Gaarder, 1972: 57)

Furthermore

> "If (the child) has not achieved reasonable literacy in his mother tongue - ability to read, write and speak it accurately - it will be virtually useless to him for any technical or professional work where language matters." (ibid: 52)

The general concensus of opinion regarding education through the second language in the U.S.A. would appear to be one of dissatisfaction with results. The other context where immersion programmes are run is Canada and here the verdict appears to vary slightly.

Barik and Swain (1976), in their evaluation of the English-

French programme at Elgin, state that by Grade 2 the French performance of the Partial French Immersion group in relation to controls did not come up to expectations on the basis of contact time in French. Because the programme allocates fifty per cent of time to each language there is no deficit on English language skills, i.e. in the preferred language. This continues to be the case up to Grade 3. However, up till Grade 4 the PFI group "scores below expectations" (Barik and Swain, 1976: 16) with regard to the achievement of second language skills.

Lambert and Macnamara (1969) asses the impact of a year's study conducted exclusively in the second language on the linguistic development of first-grade children and, referring to the mother tongue, conclude that

> "on tests requiring skill in word knowledge, word discrimination, and reading skills in English - tests designed and standardized for English-speaking children who have followed a normal first-grade program in their native language and which call for reading ability in English - the experimental class is clearly poorer than either of the English control classes." (Lambert and Macnamara, 1969: 90-91)

More grammatical errors were produced in the story-telling production and, indeed, the rate of production of the experimental group was found to be slower. Children were found to be

> "slower at selecting words and constructing sequences of ideas in English." (ibid: 92)

With reference to the progress in the second language and considering speaking skills

> "in overall expressive ability, in number of grammatical errors, errors of liaison, and rythym and intonation, the experimental children are definitely poorer than native French first-graders." (ibid: 93)

Whereas understanding skills had been better mastered, phoneme production was poor.

Subsequently, in 1970, Lambert, Just and Segalowitz examine the

consequences of following the curricula of early school grades in the foreign language and find that, in the case of the native language, children are inferior to controls in reading skills and word knowledge. They tend to overemphasize common sequential patterns in language, the semantic relationships among concepts in English and yet underemphasize verbal transformations and rhymes. After two years in the programme the experimental class improves its performance. With regard to competence in French, the second language, the immersion children were found to be inferior to the controls in listening comprehensions, vocabulary depth, intonation and rythm. They tended to overstress commonly occuring verbal sequences and to under-use transformation-type verbal responses. After two years, vocabulary knowledge is still poor and actual improvement over year 1 is small, phonemically speaking. This raises the question as to the chances of attaining perfect command of second language pronunciation in these circumstances. In story retelling and inventing, the experimental class made more grammatical errors, especially of gender and agreement, and indeed the command of second language grammar was found to be low when inventing a story without a model.

Children were studied after three years in an immersion programme by Lambert and Tucker (1972) and, excepting some difficulty with English rules of punctuation, were found to show no symptoms of retardation on tests of English language competence. When they found the experimental class to be reliably lower than controls on the Test de Rendement en Français, the authors claim that

> "this was because the test called for a knowledge of grammatical nomenclature and stylistics the children had not been trained for". (Lambert & Tucker, 1972: 140)

Indeed, by the end of grade 3 the children had not yet attained nativelike command of all aspects of the language.

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This appears to be the main stumbling block in the path of immersion programmes. Connors, Menard and Singh (1978) claim that subjects fall short of nativelike performance on measures of linguistic competence. They mention

> "the dramatic inadequacies of our immersion subjects in situations less structured than classroom recitation." (Connors, Menard and Singh, 1978: 69)

Semi-structured interviews indicate this forcefully. This assertion is supported by Macnamara when he points out that

> "Persons whose knowledge of a language is confined to what they learned in school often fail to learn many words which native speakers of the language picked up as children about their homes and at play with other children." (Macnamara, 1967: 6)

Connors, Menard and Singh continue their criticism of French Immersion Programmes,

> "The overwhelming majority of the students interviewed were unable to carry out anything resembling a conversation and answered the interviewer's questions in utterances ranging from a monosyllable to a phrase (in the technical term). The fact, then, that our immersion subjects demonstrably have considerable knowledge of linguistic structures but an inability to use them in relatively unstructured situations leads us to distinguish their linguistic competence from their functional or communicative competence." (Connors et al, 1978: 69)

They attribute this fact to the skewed nature of the linguistic input the subjects receive and of the linguistic output they produce. As Labov has claimed, input determines grammar construction. The important thing is not the quantity of exposure but

> "the linguistic normalcy and diversity of the input the subject receives and of the output activities he engages in." (ibid: 71)

They conclude their criticism of Lambert and Tucker's (1972) evaluation of immersion programmes by submitting that

> "such highly structured 'objective' tests of the vocabulary and orthographic norms of the written language tell us very little about approximation to native speaker competence." (ibid: 71)

In fact, the lack of opportunity to use the second language actively in the out-of-school environment contributes to this low level of competence.

The whole design of the immersion model would appear to run against the grain of what Macnamara calls the "faculté de langage", the natural device for learning a language. The teacher has little to say to the child and the child has little of importance to say to the teacher. With linguistic consequences of the sort mentioned above, what will the effects be on the children's general educational attainment?

3.3 General Educational Consequences

We have already seen that education through the medium of a second language has consequences on cognitive and language development so we must now look at the effects all this has on children's attainment in school. Once again, much of the research has been carried out in the context of the Canadian French Immersion Programmes.

Lambert, Just and Segalowitz (1970) investigate the effects on achievement in a non-language matter such as mathematics when it has been taught through a foreign language for a two-year period and conclude that the experimental groups attain the same level as the controls in tests of problem and computational arithmetic. However, and this is important, the testing is conducted in English, the children's mother tongue. Lambert and Tucker (1972) support this assertion of similarity between experimental and control groups in mathematical attainment. Again, children were tested through English. When children are taught and tested in their second language, results would appear to change drastically.

Difficulties are encountered when the students' "language

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processing mechanism" is overloaded (Rado, 1974). As a non-native speaker, listener and reader in specific subject areas they may not be able to exploit the redundancies of the formal, standard language of instruction. Difficulties are also found with the school language on the basis of what Bernstein calls "reduced predictability". If the child is not sufficiently "in the know" he cannot predict or intelligently guess while processing language. The more he knows about language and the subject matter in question the better he can select relevant points, the less attention he needs to pay to detail, the more he can take for granted and the easier it is to process language within the time limit available. Only in this case can the child pay more attention to meaning and become more efficient (Rado,1974). Campbell (1970: 305),referring to Navajo and Mexican-American children in South California who are taught and tested through English, points out

> "By the end of the six years of elementary school, a great number of these students were tragically behind their English-speaking counterparts in their academic achievement and were prime candidates to drop out of school within an additional few years. To explain these results, the most common assumption has been made that it is unreasonable to expect a child to acquire the fundamentals of education in a language he does not understand."

As far as arithmetic is concerned evidence points to the fact that second language education does not affect children's progress in mechanical arithmetic provided teaching is carried out throughout in that language. However, researchers conclude that

> "Bilingualism is associated with relatively poor standards in problem arithmetic." (Macnamara, 1966: 42)

This is especially the case when subjects are tested through the second language.

Macnamara (1967) claims that results of tests show up the relationship between the grasp of the language of instruction and attainment.

Children take longer to solve written problems presented in the weaker language. Problem solving in the weaker, second language is made difficult because of inadequate grasp of language. It has been shown that

> "The low level of general academic attainment, and in particular of English, discovered in most studies of Spanish-English bilinguals, seems to be due at least in part to the language factor, because in the one study in which the important independent variables were adequately controlled, that by Carrow (1957), bilinguals compared unfavourably with monoglot English-speakers.... The California Test of Achievement, The Durrell-Sullivan Reading Capacity Test, the Gilmore Oral Reading Test, and the Fairbanks Test of Articulation for Non-Readers were administered to all the children.... The mean score obtained by monoglots in each of the tests was higher than that obtained by bilinguals." (Macnamara, 1966: 10)

It would appear that difficulties in semantic decoding explain problem difficulties. This would account for the greater difficulties encountered with problem arithmetic where the child has to read and interpret prose passages. Retardation in these aspects of school work is of long duration as various studies have revealed. As Macnamara (1967: 131) reveals

> "Bilinguals have greater difficulty in making out the meaning, and, because of the extra attention they must pay to that task, greater difficulty in recalling other parts of the message while decoding a particular section. Consequently they have greater difficulty in picking out what is relevant... and discarding the remainder. All this would amount to greater difficulty in solving problems expressed in the weaker language."

All this is so even when the components of the problem are separately understood. The Irish findings, related to the teaching of non-language subjects through the medium of a second language, show the enterprise to be a discouraging one; there is a detrimental effect on children's progress.

There are then various interpretations of the effects of second language instruction. It must be borne in mind that reservations

exist even in the studies that claim positive effects. As Swain points out many immersion classes that claim success are traditional and rigid; moreover the pupils that take part are carefully chosen and recommended by headteachers. All are voluntary and are advised not to take part in the programmes if they encounter problems with their own preferred language or mother tongue. It is almost as if only those who could benefit from the immersion programmes, those of a certain level of intelligence, have been chosen so as not to be victims of such an enterprise. Hardly a promising advocation of this form of education. Indeed most researchers agree that

> "poor control of the school language could well prevent a child from developing competence in several important areas of schoolwork". (Macnamara, 1970: 34)

As Dodson (1967: 156) points out

> "The theory of an immediate language bath... is a questionable one. If the junior-school children are 'thrown' too soon into a situation where they hear nothing but the foreign language and yet are required to learn about the content of the lesson, serious drawbacks can arise".

In this language-bath approach many children sink, with obvious effects on personality and educational attainment.

Despite claims made by supporters of immersion programmes (Lambert and Tucker, 1972) it seems clear now that immersion subjects employ non-native strategies; this carries over into, and affects, their schoolwork. Even when children are reported to be coping adequately when dealing with mechanical problems nudging doubts, and at times empirical proofs, suggest that they lack depth of language and that their ability for comprehending material is suspect. All this results in these children who are taught and tested through their second language falling below expectations.

3.4 Affective Consequences

Although more research has been carried out into the linguistic or educational consequences of education through the second language some investigators have devoted effort to the study of the affective effects of these programmes on children.

While Anisfeld and Lambert (1964) claim that, unlike college-age students, children in immersion programmes at age 10 do not have a negative bias against their own group, Frankel and Tucker (1966) believe that this bias, or inferiority reaction against their own linguistico-cultural group, appears in children around the age of 12 and is maintained henceforth. Increased exposure to, and proficiency in, the second language brings an increased modification of the place in the original membership group. Depending on the compatibility of the two groups and languages children will experience feelings of regret as well as anomie. Indeed advanced students of second languages have been known to experience a strong dose of anomie when they start really to master the language. In these circumstances feelings of uncertainty and dissatisfaction are rife.

Krashen (1981) believes there is proof of a consistent relationship between language proficiency and anxiety in all situations, formal and informal. Anxiety level may be a potent influence on what Dulay and Burt (1977) call the "affective filter", the fact that there is an influence on attitudinal factors which is related to acquisition. As many researchers show, language acquisition is enabled by a low level of anxiety (Carroll, 1963; Gardner et al, 1976; Naimon et al, 1978). Using an experimental approach Swain and Burnaby (1976) studied

affective variables in immersion classes and found that a successful acquisition of the second language showed a relationship to the level of anxiety. Children who were anxious in the immersion situation did badly with all that this entails for progress in school.

We thus see that when placed in a situation where they face education solely through a language which is not their preferred one, children experience anxiety and this can lead to poor educational progress.

Conclusions

From the above review we can summarize that immersion-type techniques in education have many limitations. Children taught and tested through the medium of their second language suffer negative consequences conceptually, linguistically, affectively and in their educational attainment. Only when language arts (reading, writing, etc.) and content subjects are introduced through the first language from second grade onwards, when teachers are bilinguals, when children are permitted to speak in their first language until they are ready to speak in the second, when second-language lessons are initially unstructured so as to avoid selection and sequencing of structures in a way that is inconsistent with how children learn language, when the programme is optional and has been initiated because of parental pressure does "immersion" succeed. All the programmes that lead to negative effects on the children are those which lack the characteristics just outlined (Cohen & Swain, 1979).

We must now turn to the Gibraltar study and see to what

extent it corroborates the findings of studies carried out elsewhere, whether children who are educated through the the medium of English (initially not their first or preferred language) experience positive, neutral, or negative effects or consequences, in particular linguistically and in the area of their educational and cognitive attainment.

CHAPTER 4 A STUDY OF THE EFFECTS OF ENGLISH-MEDIUM EDUCATION

This study was undertaken between the months of December 1981 and November 1982 and proposed to evaluate the effects which an English-medium system of education has had on those Gibraltarian children whose initial language of acquisition, in other words that language which they began schooling with at age 5, was not English but Yanito/Spanish. In any one intake there are usually between 350 and 400 boys and girls who have to cope with the situation wherein they are instructed through the medium of English. Within each yearly intake not all the children can speak English and need to learn the language from the very start. There are those who have been encouraged to learn some English by parents who are conscious of the fact that competence in this language will prove of tremendous advantage in school and will facilitate educational success. Yet there are those for whom English is virtually unknown and who will have to contend with learning the language and being taught through it as a medium. It is this type of child that this study has been concerned with.

The aim throughout has been first to establish whether or not the tests administered to bilingual Gibraltarian children correlate with or refute the findings of tests which have been administered to bilingual children in other bilingual communities such as Wales, Canada and certain parts of the United States of America. Secondly, the purpose has been to ascertain whether or not any new findings emerge concerning the effects of instruction through a second or weaker language.

4.1 The Subjects

On consideration of the time and resources available for the

completion of this study it was felt that an optimum number of subjects ranged between 30 and 50. These were selected from Gibraltar's comprehensive secondary schools and comprise the 12 to 14 year age-range. A fairly wide ability-span is represented, with subjects chosen from both upper and lower band groups.

4.2 Selection of Degree of Bilingualism

For the purpose of this study, the subjects were selected on the basis of initial language preference or dominance. In other words, they were chosen for study according to whether or not Spanish had originally been their language of communication when they started schooling at the age of 5, seven or eight years previously.

To determine which children fell under this category of "initially monoglot Spanish-speaking" a revised version of the Hoffman Bilingual Schedule was drawn up and administered to class groups as a whole. The aim was to find out which language the children had been exposed to at home during the language acquisition period.

The test was composed of fourteen questions, answers to which were possible on a five-point scale ranging from "Never" to "Always". The children were first asked whether or not their mother and father spoke and understood English. They then had to answer the questions which were designed to elicit the type of linguistic background the children had been exposed to. The questions sought to elicit whether or not the family used English or Spanish and whether any one language was used by a particular member; whether the books and newspapers read at home were Spanish or English; whether letters which were written or received at home were in English or in Spanish; whether radio and television programmes which were listened to or watched were in Spanish or in English; and whether conversations and interactions with friends

and relatives in various situations (school, street, club, sports, entertainment) were through the medium of English or Spanish. The children were asked to reply to the above set of questions by picking one of the responses available on the questionnaire: Never, Sometimes, Often, Mostly, Always. Prior to this, the various meanings and implications of the possible answers had been explained in an attempt to obtain as accurate a picture as possible from this test.

With the help of the findings obtained from this test those children who came from a Yanito-Spanish linguistic background were selected for participation in the tests which hoped to establish the results of education through the medium of English.

4.3 Description of Tests Used

To study the effects of English-medium education on the initially monoglot Spanish-speaking children in the project a series of tests were administered to the subjects.

4.3.1 Word Association Task

The aim of this particular task was an attempt to find out whether the situation in which the subjects found themselves was conducive to a state of stable or unstable bilingualism. The former is a state of language maintenance where the first language acquired, in this case Spanish, is preferred over the second language, here English, in at least some domains, especially the home. Unstable bilingualism is a situation in which there has been a language shift and the second language acquired is preferred in all domains of life. The domains used for this task were "Home", "School" and "Neighbourhood".

Subjects were required to produce, in written form, as many continuous associations as possible when presented with a particular stimulus word in English or in Spanish. Stimulus words were given in English

and in Spanish alternately and all responses were written down within a time-limit of sixty seconds following the presentation of the stimulus word. Preference for a language was computed using the formula

$$\frac{NS - NE}{NS + NE} \times 100$$

where NS is taken to be the number of Spanish words produced in the particular domain and NE is the number of English words. A zero-score was taken to indicate a relative balance whilst a minus-score indicated preference for English and a plus-score indicated preference for Spanish.

Results were tabulated and analysed per domain, group and ability range.

4.3.2 Word Naming Test

In this test the subjects were required to name as many objects as they possibly could and which were to be found in a) the home and b) the school. Subjects were allowed sixty seconds in which to write down all the relevant object-words they could think of in the language of the stimulus word. The aim of this test was to assess the use of the two languages, Spanish and English, following several years of education via the medium of the latter.

The ratio of language dominance was computed according to the formula

$$\frac{\left[\frac{\text{Spanish words} - \text{English words}}{\text{Larger of the Two}} + 1\right]}{2}$$

This formula yields a score which indicates the degree to which Spanish or English is dominant. Spanish dominance-scores range from 0.501 to 1, English dominance-scores from 0 to 0.499, with a score of 0.5 indicating "balance".

4.3.3 Picture Naming Test

This test consisted of two batteries each comprising twenty pictures, ten of which depicted objects and the other ten depicting composite scenes/pictures. Batteries were used alternately so that the first subject tested used Battery A, the second used Battery B, the third one used Battery A, and so on and so forth. The test aimed to assess the ability of children to produce one-word and one-sentence utterances following a visual stimulus. It was also used to build up a picture of the level of development and dominance of the initially-dominant language and of the language of instruction.

When the groups as a whole had been informed of the test procedure and how they were expected to respond, that is completely freely in either Spanish or in English, subjects were taken aside and tested on their own, individually. One picture-card was shown at a time and the subject was given a maximum of three seconds in which to respond. The subjects were alternately shown pictures depicting objects and pictures depicting composite-scenes and the responses had to be made in either Spanish or English. If no response was forthcoming after three seconds, the next picture was shown.

All subjects were tested first for one-word responses and, at a later date, the test was administered to elicit sentence responses. The procedure was identical in both cases. At all times the "nil responses" were recorded together with the English and the Spanish responses.

4.3.4. Picture-Composition Test

For this test the subjects were provided with a series of six pictures which told a story and were then asked to tell the story in writing. They wrote their compositions in English and, at a later date, in Spanish, the test being carried out on different dates to try and avoid counterproductiveness. The time allowed for the test was forty minutes.

The aim of this test was an attempt to assess the quality of language use in both the languages in order to attempt to evaluate the degree of development and competence in the formal modes of language. The test was also used to pinpoint the type of language structures used by the children, and to classify the types of language errors committed in the writing skills. This lead to an attempt to identify the reasons for these errors.

This picture-composition test was also used to determine whether the children's language is context-bound or context-independent. Bruner and Bernstein have both developed the argument that schooling is an important determiner of the use of language to facilitate cognitive growth. In school, children must learn to use language in the absence of an immediate context. The composition test was used to evaluate the extent to which the subjects' uses of language are context-bound or free from the immediate nonlinguistic context.

The compositions were scrutinized for use of nouns and pronouns. According to Bruner and Bernstein a predominance of nouns in verbal and written productions indicates a tendency towards a context-free, elaborated use of language whilst a predominance of pronouns in texts and utterances suggests a context-bound, restricted use of language. The former type of language enables the child to formulate and develop concepts and ideas whereas the latter restricts

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the development of the individual. Context-independent use of language is required when communicating with interlocutors who do not share the knowledge and the assumptions of the speaker and this of course is of tremendous importance in the educational enterprise.

4.3.5 Test of Flexibility

In this test, designed to assess the degree of linguistic-cognitive flexibility, the subjects were presented with sentences in English and in Spanish which had one word underlined. They had to write down as many words or expressions as possible which meant the same, or more or less the same, as the underlined word. The more words or phrases the subjects produced the higher the level of flexibility.

4.4 Evaluation of Educational Attainment

The final stage in this study was the analysis of the results obtained by Gibraltarian children in external, public examinations taken at the age of 16+. The results in G.C.E. 'O' level and C.S.E. examinations between 1977 and 1982 were studied. This exercise was an attempt to try to find out the possible link between degree of language development reached and educational attainment in a bilingual community where education is carried out through what is for many a second language. The review of results encompassed both Science subjects and Arts/Humanities subjects for which children are entered.

4.5 Controls

In any respectable, objective, empirical research project it is essential that results obtained and conclusions drawn with

the group under study should be compared with, contrasted with, checked against the results and the performance of adequate control groups. This in fact ensures that findings are as valid as possible and that conclusions drawn are trustworthy.

Since all Gibraltarian children are taught through the medium of English, the majority learn Spanish as their first language of acquisition and there are no Gibraltarians who are monolingual English speakers, the availability of controls proved to be a problem. However, in order to run a check and to ascertain as accurately as possible the extent to which the subjects in the study attain native-like competence in both English and Spanish, the Picture-Composition Test was administered to children from Services families who go to normal Gibraltar schools (English controls) and to children attending a Spanish Secondary School in Jerez de la Frontera, Cádiz (Spanish controls). Control and experimental groups were matched for age and ability but we must bear in mind that it was bilinguals and monolinguals that were being matched.

This was the only available, feasible way of controlling the results obtained in the study as far as the degree of language competence is concerned.

CHAPTER 5 TEST RESULTS

The major interest in the results obtained from the study was to examine the effects which the education system had had on the language competence in English and Spanish, cognitive development and, ultimately, educational attainment of children in a community like Gibraltar. On completion of all the tasks a clear picture emerged as to the linguistic, cognitive and educational effects of an English-medium system of education on children who initially come to school speaking little, if any, English and whose predominant language of communication outside the school is Spanish.

5.1. Linguistic Effects: English Language Competence

On the whole the results show that the factors which affect the level of native-like competence are of an overall nature-namely lexical, phonological, syntactical or related to performance. Generally speaking, structures, style and punctuation are clearly affected. All subjects, although they were able to complete the tests, incurred errors of the above nature to a greater or lesser extent, a fact which may be explained by the Fluency v Accuracy dichotomy (Cummins et al) whereby children may give the impression of being fairly fluent yet cannot attain sufficient accuracy to achieve native-like competence.

Lexis. It was found that the majority of the children who participated in the study, and in particular those of lower ability, evidenced signs of vague lexical distinctions in the English language. This would seem to correlate with the above point regarding fluency and accuracy. When the results were carefully

analysed it was found that some lexical items, recurringly, had not been successfully learned to the point where children were able to avoid interference from similar, parallel items in the first language of acquisition, Spanish. This caused errors, both written and oral, not normally found in children who have acquired native-like competence through successful second-language programmes or who, like the English controls, are native speakers of English.

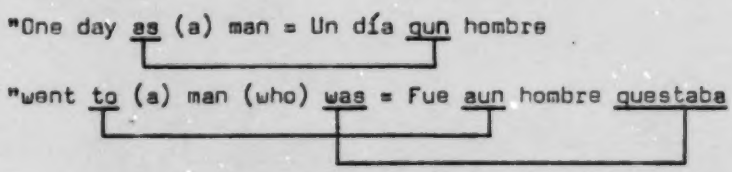
In consequence, and aggravated by the fact that Spanish is not taught in many primary or middle schools, errors like

"One day as man" = (One day when a man)
or "Went to man was" = (He went to a man who was)

are committed. The apparent reason for this is that, because English is used in Schools, children learn Spanish orally yet are not fully aware of lexical boundaries; they are therefore unable to avoid interference. Hence they will say phrases like

"Un día qun hombre" = (One day when a man)
or "Fue aun hombre questaba" = (He went to a man who was)

where "qun", "aun" and "questaba" are assimilations of "que un", "a un", "que estaba". These assimilations in the colloquial Spanish spoken in Gibraltar are then transferred to the written and spoken English used at school. Hence we see that the number of lexical items are the same in both the Spanish and the English utterances, only that this leads to mistakes. Thus,



To all intents and purposes the "a" and the "who" do not appear as distinct lexical items in the Spanish utterances. When these are translated into English they are also missing.

Another case of vagueness of lexical distinctions is found where one item in Spanish has two or more corresponding equivalents in English. This is the case with "Poner" meaning "Get" and "Put", "En" meaning "In" and "On","Meter" meaning "Get into" and "Go into", "Decir" meaning "Tell" and "Say", and "De" meaning "From" and "Off". We see from this that errors occur where one language makes lexical distinctions which the other one, Spanish, does not. Consequently written pieces of work in English abound with mistakes of the following nature:

The man got the fire out	(Put)
The main in the ladder	(On)
He told to the man	(Said)
The window from the house	(Of)

Other examples of errors caused by vagueness are

The child which was	(Who)
He caught me from the waist	(By)
Get the child that was trapped	(Who)
On the next house	(In)
Pancho took the stairs	(Ladder)

In general the ratio of errors caused by vague lexical distinctions increases as the level of ability of the children drops. Also, the older children tended to make more of these types of errors but it is difficult to attach importance to this fact.

Phonology. It was found that with some children, and especially with those from very dominant Spanish-speaking home background and of lower ability, errors were often made due to phonological interference from Spanish into English. These children tended to write words using the English grapheme that best represented the phoneme they uttered, a phoneme which was not uttered with native-like competence. So,

"Need" is spoken and therefore spelt "Nid"

because for them the letter "i" represents the sound "i". Very little distinction is made between "Is" and "Feed", for example.

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They are both pronounced /iz/ and /fid/. So, interference occurs and "Need" becomes "Nid". Again,

"Bucketful" is spelt "Backetfool",

because these children pronounce the word /baketful/ and write it using the letters in English that best represent this sound. Indeed, /a/ is nearer /ʌ/ than /u/ so this influences the production. In effect oral production is determining written production. Phonological interference is evident in errors like

So	which	should	be	spelt	Saw
Tank you	"	"	"	"	Thank you
Ran	"	"	"	"	Run
His has	"	"	"	"	His house
That mast be	"	"	"	"	That must be
Help as	"	"	"	"	Help us

because children pronounce the English words incorrectly and then transfer this incorrect pronunciation to their written work; they indescriminately use Spanish or English graphemes to represent their utterances.

Errors are consistently caused by interference between the final /d/ and /t/ in words. This is due to aspiration which is more common in English than in Spanish. So,

Went	is	spelt	Wend
Firebrigade	"	"	Firebrigate
Reached	"	"	Rescute

Obviously, all this goes to demonstrate that true competence has not been attained by these children who have been taught English and taught through the medium of English over the past seven or eight years.

Lack of competence in this area appears to be due to the fact that many parents realize that English has vital importance for the educational progress and ultimate success of their children and consequently try to encourage them to speak more English. Many of these parents, however, are not fluent or native-like themselves in their command of the language of education. Consequently, they prove to be very poor models indeed

for the children to imitate and these acquire poor pronunciation and style. This problem is not so acute when the children are involved in oral work at school because their utterances will be understood to a greater or lesser extent. However, on trying to convey these utterances in writing the nature of the problem comes across quite conclusively because then the orthographic rules are broken and these children fall well short of native-like competence. This goes together with the fact that separate lexical items are not recognised in Spanish, as Spanish is not used in schools where they could learn this; if they used it in school, children would make fewer transfer errors in English, hence this is an argument for bilingual education.

Performance. A third area where children were found not to have achieved sufficient competence was that of performance. Many children made errors of performance, errors which could be classified as being caused by syntactic interference from Spanish, by inadequately learned past tenses of verbs in both languages, by the influence of the Head word on the others in the phrase, among others.

Interference is evident in structures such as,

a black smoke was rising
He gave the last strokes with a piece of cloth
He finished of cleaning the windows
I asked where was the fire
feeling pleased of what he had done
to the house of the mother of my friend
smoke got more big and more big
On the house number 3 is the smoke coming out

If translated back into Spanish these phrases would be lexically and syntactically correct.

Errors were also found with the past tense, especially with that of irregular verbs. So,

they ranad for help
the girl was puten
one of the women runed

were the type of incorrect phrases used by some children.

The third area of performance where errors were evident is that in which the mistakes are caused by the influence of the Head of the sentence. For example,

he went to took

is the result of the influence of "went" on the second verb which should have been in the infinitive but which was written as the past tense since the main verb was in that particular tense. Again,

one of the woman

is incorrect because the noun should be in the plural yet the child has written it in the singular because the first word of the phrase, "one", is also in the singular. Again, when compared with controls, native-like competence has not been achieved.

Structure, Style and Punctuation. In general terms the style used by many of the children studied varies greatly from near-native to one that immediately betrays the fact that the writer has great difficulty in expressing himself or herself correctly and coherently. Many of the lower ability children in the study, and even some of the children in the top groups, use a style that tends to be repetitious and over-dependent on the use of context-bound language (see section 4.3.4). Punctuation is another area where competence is lacking. The following passages clearly illustrate these points, together with other errors mentioned above.

Passage 1. One suning morning I was 'ching the window and I was singing and I was very happy and I saw smoek geting out of the window. I said for me that mast be the kichen but them the smoek was geting more big and more big and Mr Smit was pasing beside the window and she said look Mr Linf ther are fire in Mr Parody house and Mr Smit said I am going to called the fireman she called the firemen and the fire men was geting the little boy out of the house them the put out the fire and every body was well.

Passage 2. It was a Monday when Mr Brown was singing and cleaning the window and he went to the arther side. Two woman

was passing and saw a grate smoke from Miss Bell house and a girls cry at the window the woman run to Mr Brow and tell him that is a great fire in Miss Bell house the her child is cry at the window Mr Brown called the firemen she quickly and called the firemen the Mr brown run with the ladder and got the girl and got her down the firemen came quickly with the hose and the fire was all over.

Passage 3. One day my Dad was cleaning a window. He was singing a song. He was cleaning a big window but the next house one of the window smoke was coming out black smoke. There were to women shorting out fire, fire when there saw a small boy crieing at the window one of the women runed to the telefono and called the firemen and one of the woman runed to my father and said can you help as there is a big fire and there is a small boy trapped inside the house my father got the ladder and runed the window opened the window and got the smallboy out when he was down the stairs of the ladder the fireman came with the fire engine to stop the fire.

Passage 4. A man was cleaning the window he was whisteling but in the next house there was a fire he did not realize, and two woman passing threw the streets saw the fire and they so a poor girl inside dying because of no air and one of then called the fire brigade mean while the other told the windo cleanir what happening then he came rapidly and got the girl and the fire brigade put the fire of and the two woman was proud of him.

From these passages selected from all those written by the children for the picture-composition test it is perfectly obvious that there are those who clearly are a long way from full communicative competence in the language of instruction and from the advantages that true bilinguality appears to bring to the educational enterprise.

5.2 Linguistic Effects: Spanish Language Competence

When the tests for Spanish language competence were analysed, it was found that where children fall short of true competence this was due to morphological errors caused by a) vagueness of distinction, b) phonomorphological errors, c) errors caused by vague lexical distinctions, d) anglicisms and e) errors in general performance.

Lexis. It was found that, on the whole, errors of lexical distinction

are as common in Spanish as in English; one has to consider, however, the fact that Spanish is as a rule not taught until children get to the secondary schools. Errors made were of the type that would not normally be expected of native speakers of Spanish, errors arising out of confusing

ha	with	a
a	"	en
sitio	"	lugar
abajo	"	al pie
vinieron	"	llegaron
lavando	"	limpiando
poner	"	hechar
ayamar	"	a llamar
para ja	"	para allá

and not making assimilations where required, as when producing

a el	instead	of	al
de el	"	"	del

or making assimilations where they are incorrect, as when writing

ala	instead	of	a la
ques	"	"	que es
alolargo	"	"	a lo largo
allao	"	"	al lado

All these errors are the result of the fact that children are not taught how to write in Spanish so that when they need to do so they merely transcribe the colloquial language they have acquired during childhood. They are consequently making errors which a properly structured course in teaching writing in Spanish could easily erradicate. Basically all these errors are due to an untutored development of language.

Morphology. In exactly the same way as some errors in English are the result of interference from Spanish so some errors in Spanish are caused by interference from English. Again the reason for this is to be found in the fact that Spanish is not formally taught during the first years of schoolong.

In this way, children when writing in Spanish will write

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cohio	instead of	cogió
bage	"	"	bajé
llo	"	"	yo
quenta	"	"	cuenta
abaho	"	"	abajo
pogete	"	"	poyete
segida	"	"	seguida
toces	"	"	toques
hico	"	"	hizo
caje	"	"	calle
juapa	"	"	guapa
saledo	"	"	salido
ajuda	"	"	ayuda
gorando	"	"	llorando
yamar	"	"	llamar
quando	"	"	cuando
saquar	"	"	sacar

because they will tend to use English morphemes instead of the necessary Spanish ones. They have been taught how to write solely in English and when they write in Spanish they simply apply what they have learned in English with all the consequences that we have just seen; some of the errors could be said to be caused by overcompensation, in an attempt to produce correct work when spelling rules are not adequately known. Errors of this nature, not normally found among children who are native speakers, are to be found more frequently and abundantly among lower-ability children and cover both the consonants and the vowels. Basically it is a problem of confusing two letters which have the same sound in both languages or one letter which sounds different in each language.

Very much akin to these aforementioned errors, yet much more influenced indeed by phonology, are those mistakes which are caused by the fact that sounds which are produced in a similar phonetic environment are not discriminated or distinguished adequately mainly because the children's Spanish has not been developed sufficiently. These confusions exist between /v/ and /b/, /s/ and /e/, /b/ and /p/, /s/ and /z/, /p/ and /v/, and /n/ and /a/ among others. So many

children studied wrote

hablava	instead	of	hablaba
hasia	"	"	hacia
llebe	"	"	llevé
argo	"	"	algo
ninio	"	"	niño
rombio	"	"	rompió
empeso	"	"	empezó
capina	"	"	cabina
havian	"	"	habían
estraña	"	"	extraña

to name but a few.

Indeed, quantitatively, this seems to be the area in Spanish that causes most of the problems. The reasons for this are patently clear and have already been pointed out.

Anglicisms. In this particular area, discrepancies from native-like competence arise out of errors of syntax or lexis. So, while not as glaringly obvious as in other areas, some of the children tend to write Spanish structures which are direct translations of corresponding items in English. So a "telephone box" becomes "caja de teléfono" instead of "cabina telefónica", "shouting for help" is "gritando por ayuda" instead of "buscando ayuda", "to catch fire" is "coger fuego" instead of "prender fuego", "the fire department" is "el departamento de bomberos" instead of "el servicio de bomberos", "placed a call" is "puso una llamada" and not "hizo una llamada", and so on. Item for item the faulty utterances are a direct translation from English.

It would seem that the lack of competence in this area of language could be accounted for by the fact that, because English is taught according to the immersion philosophy without the assistance of the first language (Spanish), then there is a lack of comparative and contrastive activities and work during the initial stages of second-language learning. As a result the errors of the type just mentioned go unchecked; since these children only read English in school they inevitably pick up structures which are subsequently transferred to

Spanish to produce these anglicisms which so suppress the development of language.

Performance. A fourth source of errors in Spanish and consequently an influence on competence is general performance. Here the main causes are syntactic interference from English and inadequately acquired verb tenses. To a lesser extent children tended to confuse letters which produce different sounds in the two languages yet which are found in similar or identical words. So, instead of writing "My" in Spanish as "mi" they tend to write "me" because this is how the sound /mi/ is written in the language in which they have learned to write.

As in the case of English, competence in Spanish has not been totally achieved by all and as the following passages illustrate the level of competence in some cases is indeed extremely low. incorrect words are underlined.

Passage 1. Uno dia me parde estaba lepodo la ventan. Me parde estaba cantado. Una canson de el peso de areva. En la casa de alado estaba caledo humo por una ventan el humo era necor. Dos mujers estaba meradd para areva porque en la ventan avia un ninio una de la mujers corojo para la capina de telefono para jamara los bombero pero una de las mujers jamor a me parde. Me parde se subio por la escalera y savalo a nino al minoto los bombero a vean jecado.

Passage 2. Una manana eataba libiado los quistales quando derepente avia mujo umo y dihe pamimimo esto serala la cosina pero despe la senyorita Link pasaba por la ventata y vio que avia vego y jamo por te le fono a los pomperos los pomperos vinero y subiro y coyero a una nina y a pagaron el fego.

Passage 3. Era una vez (__) senor Smith estava limpiando las ventanas

de su casa. Tenia un cubo de agua para la ventanas. En la otra casa de allao esta saliendo umo de la ventana. (__) senor Smith no se havia dado cuenta del umo en la otra casa. Dos mujeres que estaban pasando se dieron cuenta y corriendo una se fue flechao para (__) senor Smith y la otra puso una llamada para lo bombero. (__) Senor Smith corriendo puso la escalera contra la ventana de la que salia el humo y havrio la ventana para saca la nina de 8 anos. (__) Senor Smith trajo la nina para avaho y a ese momento llegaron los bomberos y recohieron la nina sana y salva.

These three passages, the first two written by lower-ability children, demonstrate quite vividly the lack of true language competence in Spanish on the part of Gibraltarian children. Some parts are totally incomprehensible to anyone who may not be aware of either the topic on which the children are writing or of the idiosyncracies of colloquial Southern Spanish. Even the passage with the least number of errors has structures in it that would immediately betray the speaker/writer as not being totally competent when compared to monolingual native-speakers of Spanish. Many of the pieces of work presented by children for the study are deficient and the cause is that, because Spanish is not taught formally during the first years of schooling, many children randomly select how they are to portray graphemically their phonemic utterances.

5.3 Linguistico-Cognitive Effects: Language Dominance

To determine the degree of language dominance and assess use, two tests were used. These were the Word-Naming Test and the

Picture-Naming Test.

On analysing the results of the Word-Naming Test it became quite clear that taking language use by domain or situation the children's first language of acquisition, Spanish, remained dominant in the Home domain. This was so in the majority of cases since 46.8% had Spanish as dominant language, 34.3% had English as dominant language and 15.6% were balanced between the two. In the School domain trends are reversed and here only 9.4% of the children were Spanish dominant, English being the dominant language for 62.5% of the children with 28.1% balanced between the two. It is clear that due to the fact that the sole medium of instruction is English the difference in degree of dominance in School is much wider in favour of English whereas in the Home the gap between the two languages closes considerably. On total language used, taking both domains combined, 37.5% of children were Spanish-dominant, 43.7% were English-dominant, and 18.7% were balanced. It is worth noting that the widest differences in dominance ratio were found among the younger children (Home domain: 70% Spanish-dominant, 20% English-dominant; School domain: 10% Spanish-dominant, 80% English-dominant). It would appear from the figures that were obtained with older children that after a year or so at secondary school level, where Spanish is taught formally as a joint first-language on the curriculum, the gap between the two languages begins to narrow down in the School domain.

From the cognitive aspect of bilingualism a good picture of dominance, irrespective of domains, emerges when we consider the results of the Picture-Naming Test. The stimulus here was a non-verbal, pictorial one and responses ranged from total replies in either English or Spanish, through relative balance

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between the two, to nil-responses. When asked to supply a one-word response to the stimulus 40% of the children studied answered in English and 59% in Spanish. Ten subjects failed to respond on one or more occasions within the time-limit set for the responses. When asked to produce one-sentence responses the predominance of Spanish became more accentuated, 73% of children answering in this language, 26% answering in English, and once again eight subjects could not produce a response on time to one or more of the stimuli. It is worth mentioning that five of the children were nil-respondants to some of the stimulus-pictures in both the one-word and the one-sentence tasks. This would seem to suggest that some of the concepts represented on the picture are not being adequately developed and that language, the oral representative of concepts, is consequently deficient. Taking these findings to their extreme one could argue that the education system is not only leading to functional illiteracy but that instead of bilinguals it is in danger of producing semi-linguals. Semilingualism is not caused by the existence of two languages but by the way they are taught. In fact some of the weaker children had more difficulty giving the sentence responses than the one-word responses; yet another pointer to lack of language development.

5.4. Cognitive Consequences: Degree of Flexibility

Under test conditions the children in the Study displayed a degree of flexibility which could be termed comparable to the ratio of language dominance. Those who had better command of one particular language displayed greater flexibility in so far as they produced more words associated with a concept, pro rata,

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than the weaker ones. Indeed this was perhaps a distinguishing factor between the children, because those who had acquired a better command of English were to some extent comparable to the English controls and it was the weaker ones, the linguistically less competent, who showed inferior flexibility.

On the whole the highest degree of flexibility was found among the older children (5.5 for English nouns). Flexibility on noun-concepts was higher than flexibility on verb-concepts, in particular in English, yet Spanish verbs (3.71) scored higher than English verbs (3.02) and adjectival concepts were relatively balanced. In the case of the younger children flexibility in Spanish is superior to flexibility in English: 3.82 v 2.45 (verbs), 4.78 v 4.33 (nouns). The older children displayed relatively balanced flexibility between the two languages on verb-concepts, yet were superior in English on noun-concepts (5.5 v 3.6). All this would seem to be in line with the findings discussed earlier on bilingualism in Gibraltar.

When compared with English controls the Gibraltarian children in this study proved to be superior in flexibility as far as nouns are concerned. In this area controls scored an average of 2.7 whereas the scores of the children in the study ranged from 3.8 to 5.5 on average although some did score lower than this. It is in the area of adjectival and verb concepts that the Gibraltarian children proved inferior to the controls. Whereas the children educated through the medium of their second-language scored averages of between 2.45 and 3.6, some indeed scoring lower than this, the controls averaged 4.7 in verb flexibility.

These findings go a certain way to throwing some light on the difficulties encountered by initially-monoglot children who find

it hard to cope with education through their second language. Producing coherent sentences proves to be an arduous, irksome and exacting task and ultimately the structures used turn out to be unnative-like in so far as competence is concerned.

5.5 Cognitive Consequences: "Context-bound" v "Independent" language

As researchers have pointed out language use resulting from schooling is an important determiner of cognitive growth. When the written assignments set for the study were analysed it was found that in many cases there was a predominance of the use of pronouns. This appears to provide evidence to the effect that these children's language is developing as context-bound language rather than as context-independent language. We have here quite clear implications of a cognitive nature for academic, educational attainment once we bear in mind the fact that the language of education is of the latter type and that success in the educational enterprise depends very much upon adequate mastery of this aspect of language. Dependence by some children on context-bound language is said to stunt cognitive growth, growth that is only possible with language which is independent of the immediate context.

In a subsequent section we will study the effects of language development on educational attainment in public-external examinations.

5.6 Degree of Bilingual Stability

When the results of the Association Test were analysed it became clear that 54% of the children in the study could be said to be in a state of stable bilingualism since their first language of

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acquisition, Spanish, is dominant over the second in at least one domain. However it is becoming clear that due to the education system and to the lack, up to the moment, of contact with the neighbouring Spanish hinterland language competence in Spanish is not being fully attained by many pupils, a fact that is clearly portrayed in section 5.2. Indeed many children are only competent in the informal aspects of the Spanish language and are no way near to being communicatively competent in the more formal aspects of language. When we add to this the fact that neither are many of these children competent in English, then the education system is in danger of becoming a party to the emergence of a debased form of Spanish and English, in particular in the case of the lower-ability groups. In fact the danger of semi-lingualism looms large on the linguistic horizon.

5.7 Educational Consequences

In the final analysis the educational results in a bilingual community appear to depend on two vital questions: are the children tested in their stronger language and have they attained and surpassed the "threshold level" of communicative competence? It would appear from the analysis of the examinations over the period 1977 to 1982 that in the case of Gibraltarian children one has, to some extent, to reply in the negative.

At the General Certificate of Education, Ordinary Level (Cambridge Local Examination Syndicate) the apparent trend is for results of those entered to be better in scientific and computational disciplines than in language-based subjects. While the average pass-rate of Gibraltarian entrants for Mathematics and Chemistry is 73% and 63% respectively of those who took the exam,

the average pass-rate for English Language and Geography is 42% and 39% respectively of the Gibraltarian children who have entered.

A similar trend is observed in the Certificate of Secondary Education (Southern Regional Examination Board) examination results. While the average pass-rate at Grade 1 for Mathematics is 19% of entrants, the average for English is 12%.

The need to answer questions in essay-form and a lack of comprehension of questions set seems to be an important determiner for the lower pass-rate in English. The low level of competence attained by some children in the language of instruction and of testing leads to lack of success in examinations where the norms are based on native-like command of language. As the examiners' criticisms point out overseas candidates make more errors on common words and generally show less understanding of passages. Even within Mathematics, where children tend to do better than in English, language plays an important role in that results tend to be better in mechanical mathematics than in problem mathematics because the former does not depend to such a great extent on language.

One school subject which does not seem to be adversely affected is French where the average pass-rate for Gibraltarian children is 77% of those who take the exams. Here, as in other studies of bilingual children, the knowledge of two languages no matter how incompetently, seems to have a beneficial effect on the competent acquisition of a third one. Yet it is interesting to note that some of the Gibraltarian candidates obtain higher partial grades in the supposedly more difficult examination paper (Prose Translation into French) than in the one that should be easier (Unseen Translation into English). One could conclude from this that

because of poor command of English these children do not do themselves justice in what should normally be the easier of the two translation skills, from the target into the first language.

When all these facts are considered there is an increasing feeling that the present education system is not doing adequate justice to many children. Indeed were it not for the fact that the school-leaving age in Gibraltar is 15+ and so many of the less able children do not stay on until 16+ to sit public examinations the picture would be much gloomier as far as results are concerned.

Summary of Findings

In the light of the data obtained from this study one can make a forceful set of conclusions concerning the effects of English-medium education on Gibraltarian children whose initially-acquired language was Spanish and not English, the language of education. They would appear to be of a linguistic, cognitive and general educational nature.

As findings elsewhere have pointed out the children studied lack fluency and especially accuracy and display a delay in the development of both their languages. As a result they tend to score below the level expected of native speakers and make a higher proportion of errors than these. They show a poor level of phonetic production so that perfect command in second language pronunciation is something many of them never achieve. Language errors appear to result from vagueness of lexical distinctions, phonological interference, poor performance, phono-morphological incompetence, vagueness of morphological distinction, structural inadequacies, and so on. The result is that while some children may at times show signs of linguistic competence many appear to

be functionally or communicatively incompetent, in particular in the English language.

Failure to cope adequately with the language of education leads to a low level of fluency, flexibility and cognitive development. Many of the children do not appear to have attained a "Threshold Level" (Council of Europe) and are therefore not reaping the cognitive benefits of bilingualism. Since schoolwork and general development at the formal operational stage in which these children find themselves is language-dependent, a poor level of competence has important effects; this might be the reason why this study's findings in this area are different from others'.

As far as educational effects are concerned, results show that many of these children perform worse than could be expected, especially in language-dependent subjects. Indeed the non-native strategies employed by the children, the lack of language depth they exhibit together with difficulties in comprehending material all lead to poorer results than would be expected.

We have thus seen that many children have indeed not benefitted by following a monolingual Immersion-type programme of education in their second language.

CHAPTER 6 RECOMMENDATIONS REGARDING LANGUAGE TEACHING

As we have observed from the results of this study, Gibraltarian children whose language of communication in the home environment is wholly or predominantly Spanish when they enter school show clear signs of not having attained full communicative competence either in one, or in some cases in both their languages. This assertion is clearly borne out by the fact that these children tend not to use native-like linguistic strategies when communicating orally or in writing. Indeed language errors abound in the areas of a) prepositions, errors which are considered to betray communicative incompetence, b) lexical distinctions, where vagueness is apparent, c) phonological and syntactic interference, and so forth. Quite clearly this present situation requires remediation if the educational attainment of these children is not to suffer. Despite the preponderance of Spanish or Yanito in day-to-day interactions, Gibraltar is closely linked to Britain so that English is indeed a language of great importance. Moreover, Gibraltarians are in the enviable position of being able to acquire and develop two of the world's most useful languages, all completely gratis if done through the education system. Hence it would seem that the solution lies in utilizing an appropriately successful method to enable people to become competent bilinguals, not in excluding, eliminating, or disqualifying one of the languages from the curriculum. It would seem, then, that the most viable way of achieving this aim of developing true bilingualism, with all its accruing benefits, is through the medium of a model of bilingual education. To this end we will discuss what is bilingual education, what models are currently available, why it is the appropriate form of education for a

bilingual community, which would seem to be the most appropriate model, and, finally, what the implications of all this mean for Gibraltar.

6.1 Description, and Types, of Bilingual Education

Bilingual education, as the term implies, is the use of two languages for all or part of the instructional, educational programme. A bilingual school, then, is a school which uses, concurrently, two languages as mediums of instruction in any portion of the curriculum. Thus, for example, Mathematics taught in both English and Spanish, or Mathematics in English and Social Education in Spanish, or all subjects (except English and Spanish) in both languages would constitute bilingual education. Spanish through Spanish and all the other subjects in English, as is the case at present in Gibraltar, would not.

Assumptions currently concerned with bilingual education relate to four basic ingredients of the framework of sociolinguistics. First of all language variability; by now, variability is not considered to be a handicap but a phenomenon concerning and involving style. This is a very important ingredient in bilingual education and we must regard diversity as a healthy advantage. Secondly, language attitudes, beliefs and values; when an instrumental use of language in school is distinguished from an integrative use then communicative competence is certainly enhanced. Anomie results from a loss of the mother tongue in potentially bilingual individuals, a factor which is conducive to a state of subtractive bilingualism; all this has been known to create disturbances in personality and in values. Thirdly, the idea of language in a realistic social context; up to the present, language learning has been plagued by the school structure with the phasing of work from easy to difficult but

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unrelated to context. Bilingual education is not the same as total immersion. In it the content instruction in peripheral areas is initially carried out in the second language. Indeed,

> "Content instruction in the new language is a reasonable approximation of the realistic social context so necessary to good language learning". (Shuy, 1981: 97-98)

A good framework for bilingual education specifies socially realistic contexts. Unfortunately no test of language proficiency accounts for realistic social context in the assessment of children's abilities. Fourthly, and finally, the concept of continuum; a continuum contrasts to binary polarities and accounts for variability, provides a finer unit of measure for language, and accounts for the fact that distinctions in language productions fall at various points on a continuum. This principle is critical for bilingual education because most learners are at some sort of stage on a continuum of language acquisition. Teacher expectations must be calibrated to such a continuum and not locked into an expectation of perfection. A good bilingual education programme needs to account for such a continuum.

Shuy (1981: 102) summarizes all this clearly when he points out that

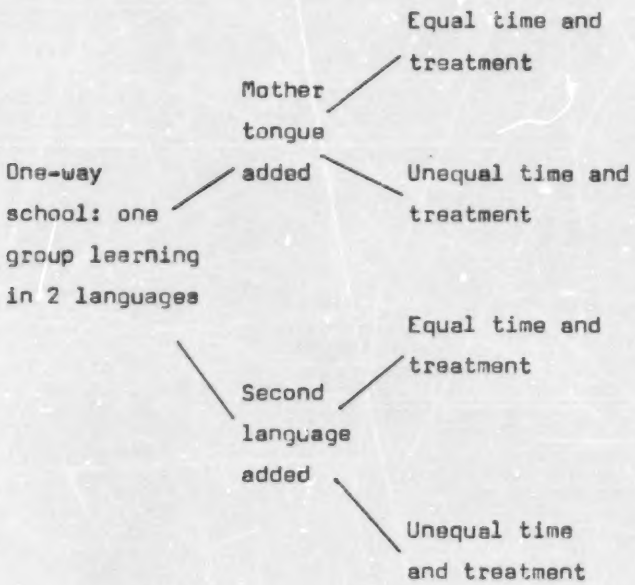
> "The focus on language variability as a positive resource is a critical first step. Seeing that language is more than simply speech but that it also involves a complex interaction of attitudes, values and beliefs is equally important. Just as sociolinguistics insists on viewing language in its realistic social context, so bilingual education can benefit from such a perspective. Last, the concept of a language continuum contributes both to pedagogical reality and to reasonable sequencing of instruction".

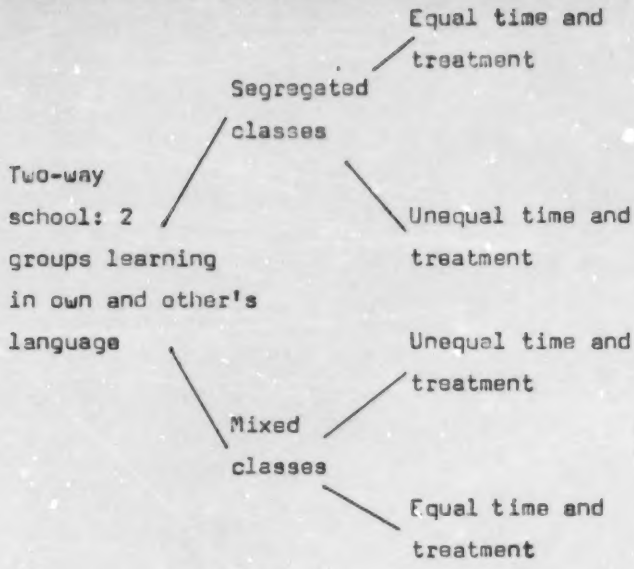
This seems to be at the core of the framework for the implementation of bilingual education.

In an attempt to fulfill the cognitive, linguistic, cultural

and affective goals championed by bilingual education in its attempt to be based on the needs of the person, two broad themes recur - transition and maintenance. Most current programmes are of the transitional type. The reason is that many programmes try to be assimilatory concerning linguistic minorities; indeed Di Pietro proposes that the United States Bilingual Education Act of 1968 was an anti-poverty measure, a legislated or "top-down" phenomenon. As such it cannot truly be termed bilingual in the way other programmes around the world can. Models of bilingual education, on the whole, fall between the assimilationist and pluralistic extremes on the continuum.

A number of typological frameworks have been put forward for the characterisation of bilingual programmes. Gaarder (1967) proposes the following scheme for analysing the pattern of language use in the curriculum and for differentiation of bilingual schools:


One-way school: one group learning in 2 languages
Mother tongue added
Equal time and treatment
Unequal time and treatment
Second language added
Equal time and treatment
Unequal time and treatment



This typology has been influenced to some extent by the Coral Way programme in Miami, Florida. Organization is seen in terms of process and product, that is to say it is taken as the course of action followed and as the educational structure which follows. The most important factors are the time allowed for each of the languages, the treatment and use of each language and whether the language which is added to the previously existing system is the mother tongue or not. Gaarder's typology is restricted to curriculum-wide use and treatment of languages and does not seem to take account of contextual features.

Bilingual education schemes have also been classified in terms of the aims they espouse. A wide-ranging typology is proposed by Fishman and Lovas (1970), who classify programmes into four categories as follows:

1. Transitional Bilingualism - the use of L1 in the early grades until L2 is developed to the point that it can be used as sole medium of instruction;

2. Monoliterate Bilingualism - concerned with the development of aural-oral skills in both languages but not with the development of literary skills in the mother tongue;

3. Partial Bilingualism - develops fluency in both languages but literacy in the mother tongue is restricted to certain subjects;

4. Full Bilingualism - students are able to develop all skills in all domains and both languages are employed as media of instruction.

This typology is more concerned with the overall strategy than with details of the patterns of language alternation employed and other curricular characteristics.

The most comprehensive typological scheme is that developed by Mackey (1972). This encompasses goals, context and patterns. It is based on the pattern of distribution of the languages:

a) in the behaviour of the bilingual at home,

b) in the school curriculum, characterised as regards

   i) medium of instruction
   ii) development it promotes
   iii) direction
   iv) distribution of languages
   v) nature of language change,

c) in the community.

Using combinations of the parameters in (a), (b), and (c) Mackey develops a series of bilingual education patterns in different contexts of language use. Up to 450 different situations can be characterised using the typology but 8 basic types are proposed:

1) Type SAT (single-medium accultural transfer)
2) Type SAM (single-medium accultural maintenance)
3) Type SIT (single-medium irredental transfer)
4) Type SIM (single-medium irredental maintenance)
5) Type DAT (dual-medium accultural transfer)
6) Type DIT (dual-medium irredental transfer)
7) Type DIM (dual-medium differential maintenance)
8) Type DEM (dual-medium equal maintenance)

In Europe the Schools Council Bilingual Education Project in Wales has clearly pointed out that the teaching and use of the second language in a bilingual education programme should be based on the way the child who is brought up bilingually learns his second and not his preferred language. Prior to the implementation

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of this philosophy of language teaching many programmes had failed to produce the required results. This lack of success is now attributed to the fact that these previous second-language teaching programmes based their methodology on the DIRECT METHOD which reflects the assumption that second-language learning is a replication of first-language learning. It was firmly believed that young bilingual children learn and develop both their languages in identical fashion as if they were two first languages. Research in this field of education has since demonstrated that the young bilingual child does not acquire one language, in relation to a given area of experience, in the same way as he acquires the other although he is learning the two languages in the same period of time. This implies that a young bilingual has a preferred and a second language for any area of experience, domain or situation. Items from two languages are fused consecutively rather than simultaneously into the developmental process concerning the acquisition and development of a concept. The preferred language is the one in which the person feels more at home while the second is the language that is added on to the first one. However the status of both languages need not necessarily remain unaltered and may, later on, be reversed depending on the frequency and quality of subsequent interactions in either of them relating to the area of experience in question. Dodson (1978) states that the strategy employed by the young bilingual when learning and reinforcing his second language (see P79) should be used for the learning and using of a foreign or second language in school, and especially in bilingual education. Schools Council Projects in Bilingual Education in Wales at both primary and secondary levels have shown that when such strategies

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were applied in schools, pupils develop a level of communicative competence satisfactory for bilingual purposes. When this approach is used in language learning the child can strive to satisfy immediate non-linguistic needs, a situation where once the language structures are internalised, the mind is no longer focused on the language-learning process but on the messages to be transmitted by means of the second language, so that communicative competence can develop through message-orientated communication.

Furthermore, in the final analysis the language and culture of the school should be compatible with that of the home, the child's L1 must be appreciated and elements need to be selected and presented in a way that will avoid conflict as far as possible. Blanco (1977: 33) insists

> "bilingual education should be considered an integral part of general education and there is nothing exotic or unusual about this form of education other than the use of two languages instead of one".

One has to agree with this and, as such, all issues of general educational concern have equal corresponding relevance in the bilingual education context. We must now consider the reasons why a bilingual education programme would be of benefit to Gibraltar and its education service.

6.2 Reasons for the Implementation of a Bilingual Education Programme in Gibraltar.

On average between 15% and 25% of the school population succeed in external, public examinations every year. In general, educationalists agree that many of the problems and drawbacks faced by children are the result of language difficulties and resultant conceptual inadequacies. In the case of children such as the ones studied, their bilingualism, in the way it has been

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treated, has proved to be a disadvantage in the present school system in Gibraltar. Schools and their curriculum have been developed for a monolingual-type population and all students, irrespective of their language background, are expected to fit in. Discontinuity between the home/environment and school domains give these children fewer chances to enrich both languages with the result that competence is difficult to attain in any of them.

Difficulties are encountered by students and are due to a faulty language processing mechanism caused by the monolingual system; this leads to a reduced efficiency in schoolwork on the basis of reduced predictability. Bratt Paulston claims that in reading, for example, two separate skills are involved: decoding and meaning extraction. Where language incompetence is present a child will read without true understanding; this affects all schoolwork. Macnamara (1970: 34) points out

> "deficiencies in the standard version of a school language can constitute added difficulty in schoolwork....so as to affect a student's problem-solving ability adversely".

Poor control of school language will prevent a child from developing competence in several areas of schoolwork. From all this we can deduce that

> "whether the bilingualism of a child is to be a strong asset or a negative factor in his life depends on the education he receives in both languages".
>
> (Bruce Gaarder, 1965: 165)

and that, perhaps more important still,

> "whether or not bilingualism constitutes a handicap, as well as the extent of such a handicap, depends upon the way in which the two languages have been learned...".
>
> (Anastasi and Cordova, 1935: 3)

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A properly conducted bilingual education programme would seem to be the solution to these problems.

Various reasons supporting bilingual education can be posited. The children who enter school with a limited or nil competence in English will most probably become retarded in school-work to the extent of their level of proficiency in English if English is the sole medium of instruction. On the other hand, the child's conceptual development and his acquisition of experience and information could proceed at a normal rate if the mother tongue were used both in the second language learning process and as an alternate medium of instruction. Again, the use of the child's mother tongue by the teachers and as a school language is necessary if there is to be a mutually reinforcing relationship between the home and the school, a relationship which, if it exists, leads to improved educational attainment for the child. Hand in hand with this is the fact that if the child does not achieve literacy in his mother tongue, this will be useless to him for technical or for professional work. Thus, the potential career advantage as a competent bilingual will have been destroyed. Cummins (1977: 4) quotes Cohen (1975), Lambert and Tucker (1972) and Swain (1974) and affirms that children who can acquire their second language via a bilingual education programme "achieve high levels of L2 competence". Malherbe quite clearly points out that children in a bilingual community do better through bilingual education than through unilingual education and that proficiency in the second language improves if an appropriate methodology is employed in the former. Tucker (1977: 39) claims that

> "some form of bilingual education programme is desirable in any community where there exists a serious and widespread desire or need for a bilingual.... citizenry".

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Supporting the case for bilingual education Dodson (1981) arrives at the conclusion that the introduction of an additional language into the school has a positive effect on children's development and attainment provided a properly organized programme is worked out. The important aspect is the significance of proper sequencing in the use of the two languages involved and the fact that, when compared to immersion programmes, bilingual education enables the child to achieve a higher level of communicative competence and consequent scholastic attainment.

In the final analysis a school system and its curriculum must of necessity cater for the individual child and for his effective participation in his environment. Hence, by integrating environmental and personal concerns, a curriculum should, as far as possible, be particular to a community and not borrowed in totum from elsewhere. School should help prepare a child to live successfully in a community and should facilitate a series of skills: linguistic, communicative skills, social skills, logical thought, and so on. In the case of Gibraltar the system of education should recognize the need to cater effectively for the community's (and hence the student's) bilinguality. It must strive for the range of registers to be extended; there should be an acceptance, an encouragement, and an accessibility to the two cultures that have merged to form the Gibraltarian identity.

If the aim of a curriculum is to be the backbone for the education of individuals, so as to enable them to participate fully and with success in the community then the notion of context must be taken into account and there should be an attempt to move away from the dependence on external examinations as the end-all and be-all of the educational process and from the

constraints imposed by the dependence. Educators should not be afraid to venture forth and use both English and Spanish as the means of teaching in Gibraltar. To this end it would seem that the solution lies in the adoption, planning and implementation of a bilingual system of education, a system that would enable the Gibraltarian to develop linguistically and educationally, a system which could go a long way to maintaining the identity of Gibraltar as a bilingual community.

6.3 Bilingual Education Model for Gibraltar

When we accept the fact that a bilingual form or model of education is a perfectly normal, usual and integral school system for use in a bilingual community it becomes appropriate to consider the commencement of this form of education at the earliest possible moment, at Infant School level. It is advisable to start bilingual education at the infant level for various reasons. It has been demonstrated that the younger a child starts to learn a second language in the way a bilingual would, the greater his or her chance of acquiring the language competently. For competence to develop the child must not be thrown into a sea of second-language as at present; from an early age he needs to progress from the known, in this case Spanish for approximately 80% of cases, to the unknown, English. He needs to be allowed to use his first language as a crutch in order to attain competence in his second. This process will enable a successful understanding of concepts which will enhance educational development from an early age. If concepts which are vital to the child's development are only presented through the second language at a stage when competence

in the second language is insufficient and the child fails to grasp these concepts then his whole educational development will be impaired and a negative cumulative process will be set in motion, a process which for some will turn out to be disastrous.

When developing a bilingual education model it is vital to realize that whenever the child starts to acquire a new range of items in the second language he does so by using his preferred language as the point of reference. According to Dodson (1978: 5) the young bilingual child takes a number of "short-cuts" in second language learning in order to reach communicative competence in that language as quickly and as early as possible so as to make use of his second language and satisfy a series of immediate non-linguistic and linguistic needs. Dodson states that

> a) if not already offered, he will ask for the preferred-language meaning of words and phrases he cannot understand or about which he is uncertain;
>
> b) he will repeat to himself or, if acceptable to other children within a group, words and phrases which he has heard in the second language;
>
> c) he will compare and contrast utterances with equivalent meanings taken from his preferred and second language;
>
> d) he will manipulate language by permutating sentence elements in his second language, at times speaking both language versions one after the other or speaking the second-language version after having heard an equivalent preferred-language version.

These short-cut activities are forbidden in the direct-method type of teaching in monolingual immersion programmes since they make use of the preferred language. In a bilingual education programme they must be built into the initial learning steps followed by the child for any area of experience.

In the previous section we saw how the bilingual child will

strive to satisfy immediate non-linguistic needs through his second language in a situation where his mind is no longer focused on the language-learning process, a situation where language becomes a tool and a vehicle for communication and learning and not just an end in itself. However, before the child can achieve this and during the period when he takes the short-cuts he removes himself from the communicative event so as to focus on the language-learning process. This is what is known as "medium-orientated communication" in that, although it is still communication because utterances are made during an interaction, the speech intentions refer to the language or to the language-learning process, in other words to the medium. Without this stage, however, the child is unable to develop the communicative competence needed to progress onto the stage where language is applied as a tool for the satisfaction of non-linguistic needs. This latter application is known as "message-orientated communication". When the fluctuation between medium-orientated and message-orientated communication, which the young bilingual employs in the "natural" situation, is incorporated into a model of education, a second language is acquired far more successfully and hence becomes an effective tool for learning; this helps the child in the school situation in his efforts to satisfy his needs (intellectual, physical, emotional, etc.) within given areas of experience or domains.

The above-mentioned procedure forms the basis of the Bilingual Method which helps to avoid many of the areas of difficulty in direct-method, monolingual immersion language-teaching about which teachers tend to complain. These areas are related to problems in meaning acquisition, retention of material, accuracy, lack of

communicative competence, and so on. Pupils in immersion programmes, including that in Gibraltar, are discouraged from taking the short-cuts which young bilinguals use in second-language learning. As there has been a suppression of prior medium-orientated work, children have found it difficult to enter into message-orientated interactions and have been unable to learn linguistic items thoroughly, as results from this study clearly demonstrate. As the study shows, the ensuing half-knowledge or vague understanding of items of language have caused a great number of linguistic inaccuracies; this constitutes a most serious obstacle to the attainment of true communicative competence and thus to successful educational development. Whereas the immersion method ignores fluctuation between medium- and message-orientated work and poses the problem of linguistic discontinuity between the language of the home and that of the school, two factors which are detrimental for the pupil's successful second-language acquisition and educational development, the bilingual method enables the learner to reach message-orientated interactions via medium-orientated work for any area of experience or topic. With this proper phasing language can then truly become a tool for learning, thus enhancing the pupil's general education.

The programme should include the means for satisfying needs through the second language, needs which have to be of an immediate nature to enable the medium-to-message fluctuation to take place. Skills should be developed in relation to the interactions which are appropriate to the bilingual environment in which the children move. The programme thus needs to include a whole range of aspects which are pertinent to the child's experience and this should be done with a level and type of language appropriate to the children.

Allied to this is the fact that the preferred language needs to have its proper place in the education of the child in the bilingual community. For this to become possible, teachers involved in the bilingual programme need information and knowledge not only about second-language development but also how this development is fused into the educative process of the learner. Last, but by no means least, the parents need to be informed and consulted and their consent and active support sought before the programme is introduced and during the course of its development; otherwise the programme will fail, as experience in various parts of the world has shown.

6.3. 1 General Methodology

The general teaching methodology of the bilingual education programme should be based on the way the young bilingual child learns his second and not his preferred language and should reflect the argument that effective second language learning is only realizable if the chance for meaningful communication is integrated with the teaching of the structure of the language. As Dodson (1973) proposes there is a distinction between medium-orientated and message-orientated communication which has already been discussed and which ought to be integrated into language development work in school. The second-language learner finds it necessary to pass through the former at one time or another for every area of experience, the frequency of this depending on the quantity and the quality of the language already acquired. Without going through this first phase he will find it difficult to develop effective communicative competence in the second language. Once linguistic competence in any language area is acquired and language can be applied (message-

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orientated communication) for communicative competence to develop, then a vast range of activities relating to curricular and extra-curricular items is available for teachers and pupils. One needs to bear in mind in this respect that the two levels of interaction are not mutually exclusive since participants, via their speech intentions, will produce a mixture of both medium- and message-orientated acts in varying proportions. The aim, however, is to increase the frequency of message-orientated communicative acts within successive lesson cycles so that language becomes secondary to the aim of satisfying immediate non-linguistic needs. One non-liguistic need of the pupils is the acquisition of knowledge. It is in the process of satisfying this need that bilingual education is gradually introduced, especially when this knowledge relates to curricular areas.

As has already been suggested bilingual education should commence at the infant level. The aim of the method would be to use activities at this stage in order to teach the second language and to help in the formation of concepts and in the acquisition of skills necessary for the successful development of the individual. There is a host of activities available, some of which are richer than others because they permit the possibility for a greater variety of experience and development. Activities should be graded in such a way as to permit children to play their way through games where their minds are focused on the language as well as the game with the aim of completing an aspect of the particular game from the point of view of understanding and using language.

One of the many activities which can be used, for example, with young children to make them learn language patterns and vocabulary that will be used subsequently in more complex

situations at message-orientated levels, is the "Command and Execute" game. Here the teacher will have objects and toys available as aids in the learning process. To start with the teacher will give the command in the target language, in this case English. Sometimes he will need to give the children the mother tongue equivalent, here it would be Spanish, especially if some children look puzzled or if a child asks for the meaning. At other times the child can guess the meaning; if the meaning is incorrect the teacher would give the correct one. The teacher will then require individual children to carry out the various commands: this can be followed by a child describing his action in the first person, or giving the command himself to other children, once this has been learnt in a similar way. All these routines need to be executed in a good spirit and should be followed immediately by related and extended play-activities which are relevant to the initial language activity, so that interactions can be raised to message-orientated levels bringing into the classroom a sense of design and proportion. This is where and when the children can "make use of" the language learnt. It is only in message-orientated communication that communicative competence can flourish, though this cannot be reached without prior medium-orientated communication for every area of experience.

With the integration of medium- and message-orientated work as mentioned above, the child is no longer thrown headlong into a sea of second language so that the ability to switch between one language and the other, so necessary for the bilingual to keep his two languages apart, is developed. This prepares the learner for bilingual education. By incorporating the "short-cuts" into

the methodology, the first language is used as a tool and the learner moves from the known to the unknown, a factor that enhances the understanding and development of concepts. Moreover since the level of L2 competence is dependant on the level of L1 competence the use and development of L1 leads to a corresponding development of L2.

It should be noted here that in the development of communicative competence in the second language the learner should fluctuate between medium- and message-orientated communication. The process should not be viewed as one where the learner goes through a medium-orientated introduction to language learning followed some time later by a switch to message-orientated communication. One level is intimately tied to the other and as such the content area of a situation that has been used to develop a child's linguistic competence should immediately be utilized and extended at the message-orientated level, where language is now a tool for learning, in order to facilitate the child's task of acquiring and developing communicative competence. As Dodson (1983) states

> "the Bilingual Method is a new synthesis which recognizes the individual's need to experience both medium- and message-orientated communication, but in which the importance of medium-orientated communication gradually diminishes, though it never entirely disappears. Within any lesson cycle the content of the interactions at these different levels of communication is initially closely related but soon diverges rapidly, so that in the later stages of the lesson cycle pupils can learn to cope with the unpredictabilities of life through the target language. Experience has shown that pupils learning a foreign or second language according to this Method will develop communicative competence in that language".

It is important for successful second language acquisition that this medium-to-message progression within lesson cycles be understood

and implemented.

One has to bear in mind, however, that the content of the target language needs to be relevant to the child and for this to be so the content of the programme needs to be dictated by the frequency of the communicative acts in the preferred and in the target language found both within the community and the school. Moreover, to emphasize relevance, materials should be developed and produced locally rather than acquired indescriminately from abroad when one runs the very real risk of presenting learners with situationsto which they cannot relate.

As Blanco (1977: 34) points out quite succinctly, the issue of methodology becomes one of classroom management where the treatment of the language is vital to the success of the programme. By using language in a meaningful context, children can increase their command of both languages quite significantly. Indeed, we can safely begin to introduce bilingual education from the early age of the child in the knowledge that his general educational development will not be hindered. Tests in English and Mathematics done by the Schools Council Bilingual Education Project, 1968-1977, show that there is no detrimental effect on children's educational development:

> "No evidence was found to suggest that general intellectual development and attainment in the basic subjects suffered in any way as a result of the implementation of the bilingual education programme".
>
> (Price, 1978: 34)

6.3.2. Time Distribution

A bilingual school is a school which uses two language mediums of instruction in the curriculum. The language balance, however,

is not a steadfast affair and indeed there need not necessarily be a 50-50 balance for the programme to be considered bilingual. Indeed, bilingual education language balance is determined by the needs of the particular community.

In a community like Gibraltar which has so many and such strong ties with the United Kingdom it is perfectly feasible that, ultimately, English should be used in a larger portion of the curriculum. However, both as an educational and as s social need, Spanish needs to have its place in the education system at a time when the Gibraltarian is striving to assert his identity, whilst at the same time it will help to improve pupils' proficiency in English. The following time distribution pattern could solve many of the present problems:

Spanish (%)	English (%)	Age
80	20	5
70	30	6
60	40	7
50	50	8
45	55	9
35	65	10
25	75	11
20	80	12-18

This language distribution as a percentage of the school day takes account of the fact that many children (approximately 80%) enter school speaking Spanish and very little or no English, that adequate treatment must be given to the preferred and to the second language and that children are ultimately being prepared for external examinations in English and that the official language of Gibraltar is English. Spanish, however, requires this percentile time because it is the language of social interaction for the majority of Gibraltarians and because it has been demonstrated that a

bilingual method of education is more beneficial, linguistically and educationally, than a total immersion-type education system. Indeed, the second language, in this case English, would be acquired more competently by a greater number of children and this would enhance their educational and career prospects.

Summary of Recommendations

1. Bilingual education, an integral part of general education and not just a "peculiar" form of education, is the only meaningful system of education in a bilingual community if education is to be the backbone of the development of that community.

2. In the case of a community like Gibraltar the adoption of a bilingual education programme would:

   a) enable the initially-monoglot Spanish-speaking child to achieve a higher level of L2 competence in English, including fluency and accuracy, and thus enhance his educational potential and career prospect as a bilingual;

   b) reduce the degree of difficulty the child experiences in his language processing mechanism caused by an exclusively monolingual education in the target language and as a result increase his efficiency in schoolwork;

   c) give comparable status to the two languages used in the community and satisfy the need for a competent bilingual citizenry;

   d) provide more continuity between home and school than at present.

3. The methodology adopted should not be that of the Canadian or U.S.A. monolingual immersion programmes but rather that employed in the Schools Council Bilingual Education Project which is based on the theoretical work of C.J. Dodson who argues that effective second language learning and bilingual education can only result if opportunities for meaningful communication are integrated with the teaching of the structure of the language itself, producing a constantly developing synthesis from medium to message (Cummins J: 1981).

4. Time distribution for the two languages should be determined by the needs of the children.

5. Innovation should initially be implemented on the basis of an individual school and requires the active support and co-operation

of the children's parents if it is to succeed.

6. Teachers participating in the programme should be trained and given on-going help during every stage of the innovatory measures, espacially at the beginning.

CONCLUSION

Language is much more than an intelligent system of communication. It is an active and creative instrument for representing and, in some cases, transforming reality and in Gibraltar there are two such instruments available. If both languages of the community are to be maintained and promoted equal enthusiasm must be shown for teaching and using them in schools. Competence cannot be achieved without commitment and willingness to accept the children's contribution; if indeed we try to do so our efforts become counterproductive and we are in fact denying the essence of the teaching enterprise.

We have seen quite clearly during the course of this study that children in Gibraltar who initially know little or no English lack fluency and accuracy and display a delay in the development of both their first and, subsequently acquired, second language following monolingual education through the medium of English. Indeed the fact remains that even when some children develop an adequate level of communicative competence by the end of junior schooling certain types of grammatical errors persist, both in speech and in written work, and these have proved extremely difficult to eradicate. This is something that is not confined to the Gibraltar situation but is common to every immersion-type programme and would appear to be due to a failure to integrate message-orientated communication with preliminary medium-orientated work.

The Bilingual Method of education is an attempt to solve these linguistic and cognitive problems by working within a system of lesson cycles or sessions to give the learner the

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chance to practice and internalize second-language structures and then move onto real communication and to the use of the language as a tool for learning. The implication emerging from research is that it is possible to avoid errors before they become ingrained or to rectify them once they begin to appear, right from the Infant School stage.

It therefore seems evident that, just as a monolingual community has a monolingual system of education, a bilingual education programme is required in a community desirous of bilingual citizenry. Ultimately

> "decisions about... a bilingual program can be made only in terms of what seems to work best in a specific situation".
>
> (Ramirez et al, 1976: 18)

Despite the many curricular problems that come with innovation or change, if we are sincere in our desire to enable children to improve and to develop their first and their second language and to derive benefits from this, bilingual education needs to be given a chance to work. As Di Pietro (1978: 108) rather strongly puts it

> "The alternative... is to continue on the path to mediocre school programs... That is the alternative which we must never accept if we dare to call ourselves responsible educators".

With objective criteria for applicability and soundness of research design bilingual education should lead to a positive effect on the development and performance of children.

If the aim of education is to provide the backbone for the development of the individual then the Gibraltar education service must venture forth, avail itself of bilingual education's benefits in the development of the first language and improvement of the

second, and tap the immense wealth inherent in a bilingual community such as Gibraltar. Children, and consequently adults, will thus come to associate both the languages with their educational experiences, become competent in the languages available to them and succeed as bilinguals in a world where bilingual competence is an asset and not a hinderance.

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